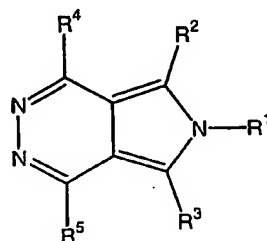


## WHAT IS CLAIMED IS:

1. A method of binding the  $\alpha_2\delta$  subunit of voltage gated calcium channels comprising a step of administering an effective amount of a compound represented by Formula (I):



(I)

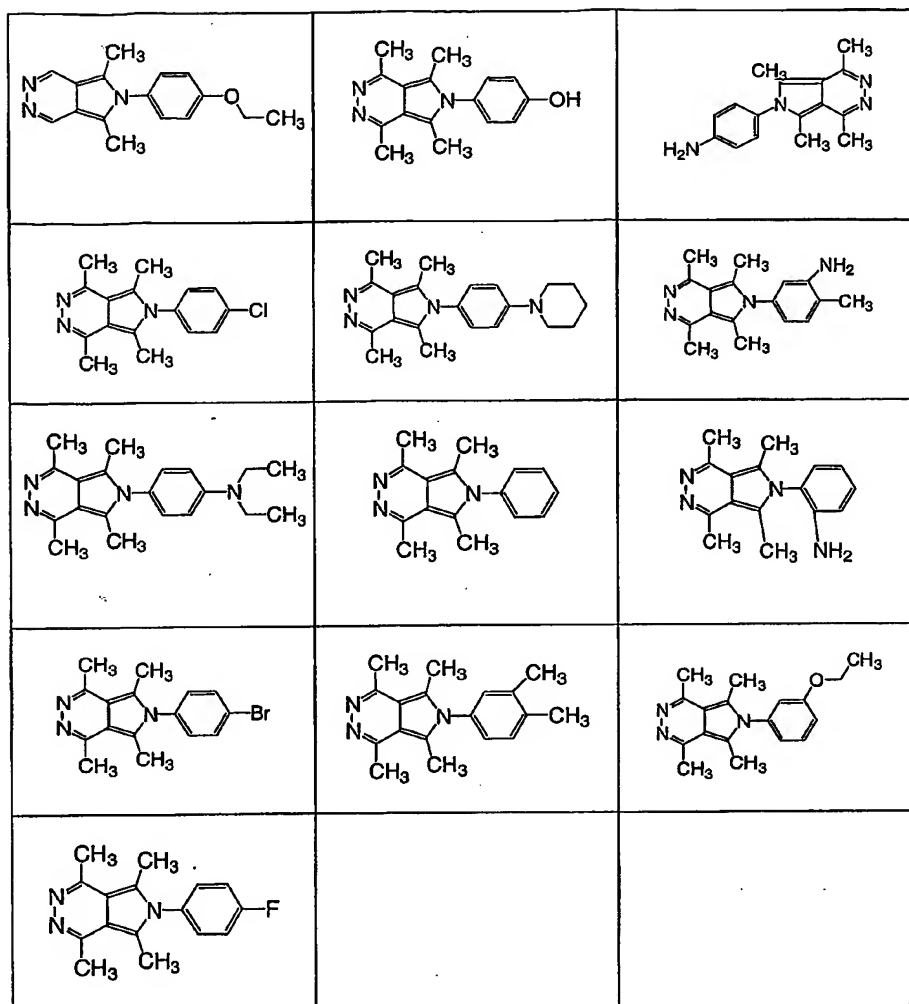
or a pharmaceutically acceptable salt thereof, wherein

- R<sup>1</sup> is -C<sub>0-6</sub>alkyl-aryl, -C<sub>0-6</sub>alkyl-heteroaryl, -C<sub>0-6</sub>alkyl-C<sub>3-6</sub>cycloalkyl, or -C<sub>0-6</sub>alkyl-heteroC<sub>3-7</sub>cycloalkyl, optionally substituted with 1-6 independent halogen, -CN, NO<sub>2</sub>, -C<sub>1-6</sub>alkyl, -C<sub>0-6</sub>alkyl-C<sub>3-6</sub>cycloalkyl, -C<sub>0-6</sub>alkyl-heteroC<sub>3-7</sub>cycloalkyl, -OR<sup>6</sup>, -NR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -N(-NR<sup>8</sup>R<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -NR<sup>6</sup>COR<sup>7</sup>, -NR<sup>6</sup>CO<sub>2</sub>R<sup>7</sup>, -NR<sup>6</sup>SO<sub>2</sub>R<sup>8</sup>, -NR<sup>6</sup>CONR<sup>7</sup>R<sup>8</sup>, -SR<sup>8</sup>, -SOR<sup>8</sup>, -SO<sub>2</sub>R<sup>8</sup>, -SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, -COR<sup>6</sup>, -CO<sub>2</sub>R<sup>6</sup>, -CONR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)R<sup>7</sup>, or -C(=NOR<sup>6</sup>)R<sup>7</sup> substituents;

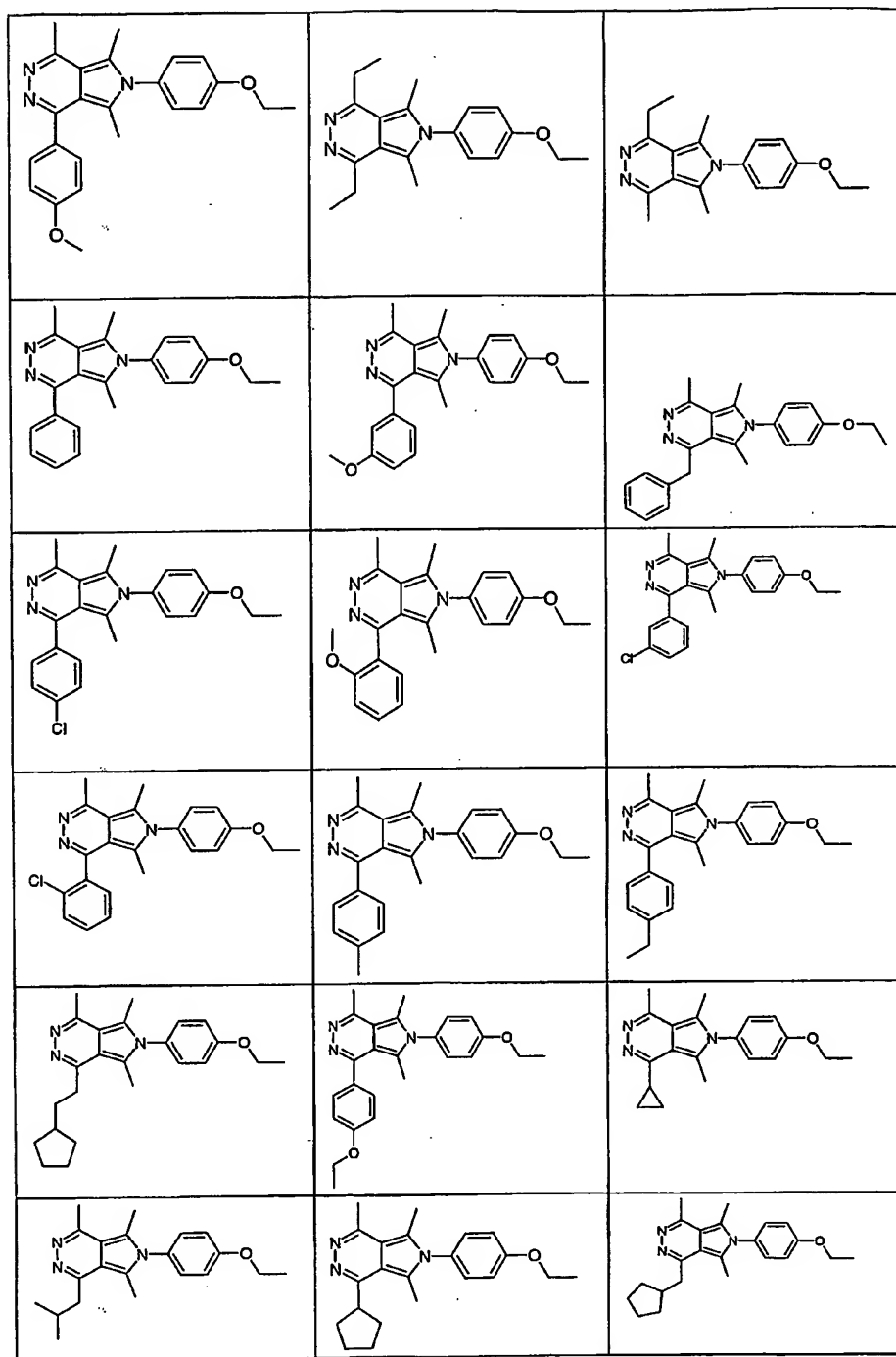
- R<sup>2</sup>, R<sup>4</sup>, R<sup>3</sup>, and R<sup>5</sup> each independently is -C<sub>0-6</sub>alkyl, -C<sub>0-6</sub>alkyl-aryl, -C<sub>0-6</sub>alkyl-heteroaryl, -C<sub>0-6</sub>alkyl-C<sub>3-6</sub>cycloalkyl, or -C<sub>0-6</sub>alkyl-heteroC<sub>3-7</sub>cycloalkyl, optionally substituted with 1-6 independent halogen, -CN, NO<sub>2</sub>, -C<sub>1-6</sub>alkyl, -OR<sup>6</sup>, -NR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -N(-NR<sup>8</sup>R<sup>6</sup>)NR<sup>7</sup>R<sup>8</sup>, -NR<sup>6</sup>COR<sup>7</sup>, -NR<sup>6</sup>CO<sub>2</sub>R<sup>7</sup>, -NR<sup>6</sup>SO<sub>2</sub>R<sup>8</sup>, -NR<sup>6</sup>CONR<sup>7</sup>R<sup>8</sup>, -SR<sup>8</sup>, -SOR<sup>8</sup>, -SO<sub>2</sub>R<sup>8</sup>, -SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup>, -COR<sup>6</sup>, -CO<sub>2</sub>R<sup>6</sup>, -CONR<sup>6</sup>R<sup>7</sup>, -C(=NR<sup>6</sup>)R<sup>7</sup>, or -C(=NOR<sup>6</sup>)R<sup>7</sup> substituents; and

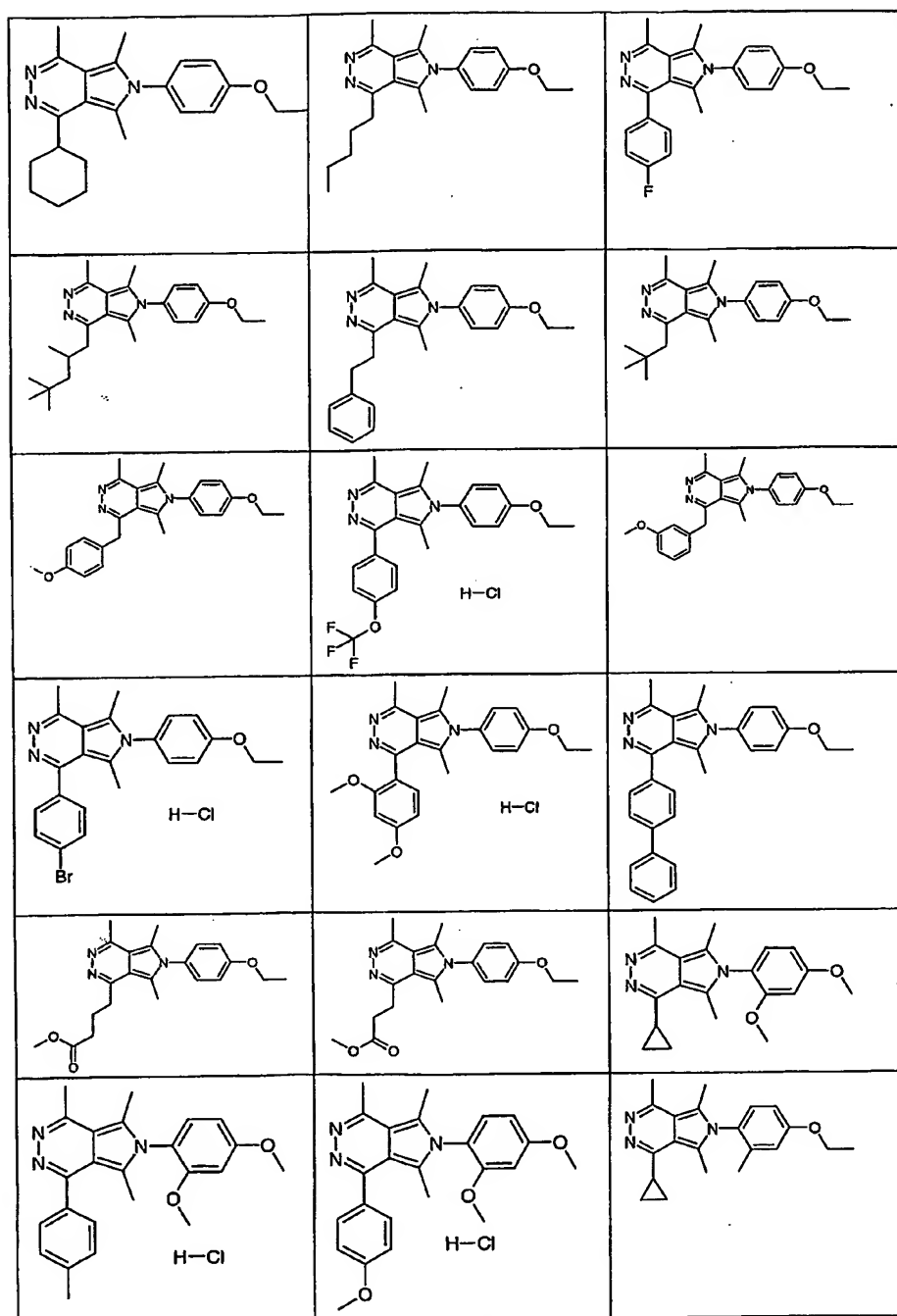
- R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, and R<sup>88</sup> each independently is -C<sub>0-6</sub>alkyl, -C<sub>3-7</sub>cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C<sub>1-6</sub>alkyl, -O(C<sub>0-6</sub>alkyl), -O(C<sub>3-7</sub>cycloalkyl), -O(aryl), -N(C<sub>0-6</sub>alkyl)(C<sub>0-6</sub>alkyl), -N(C<sub>0-6</sub>alkyl)(C<sub>3-7</sub>cycloalkyl), or -N(C<sub>0-6</sub>alkyl)(aryl) substituents; and

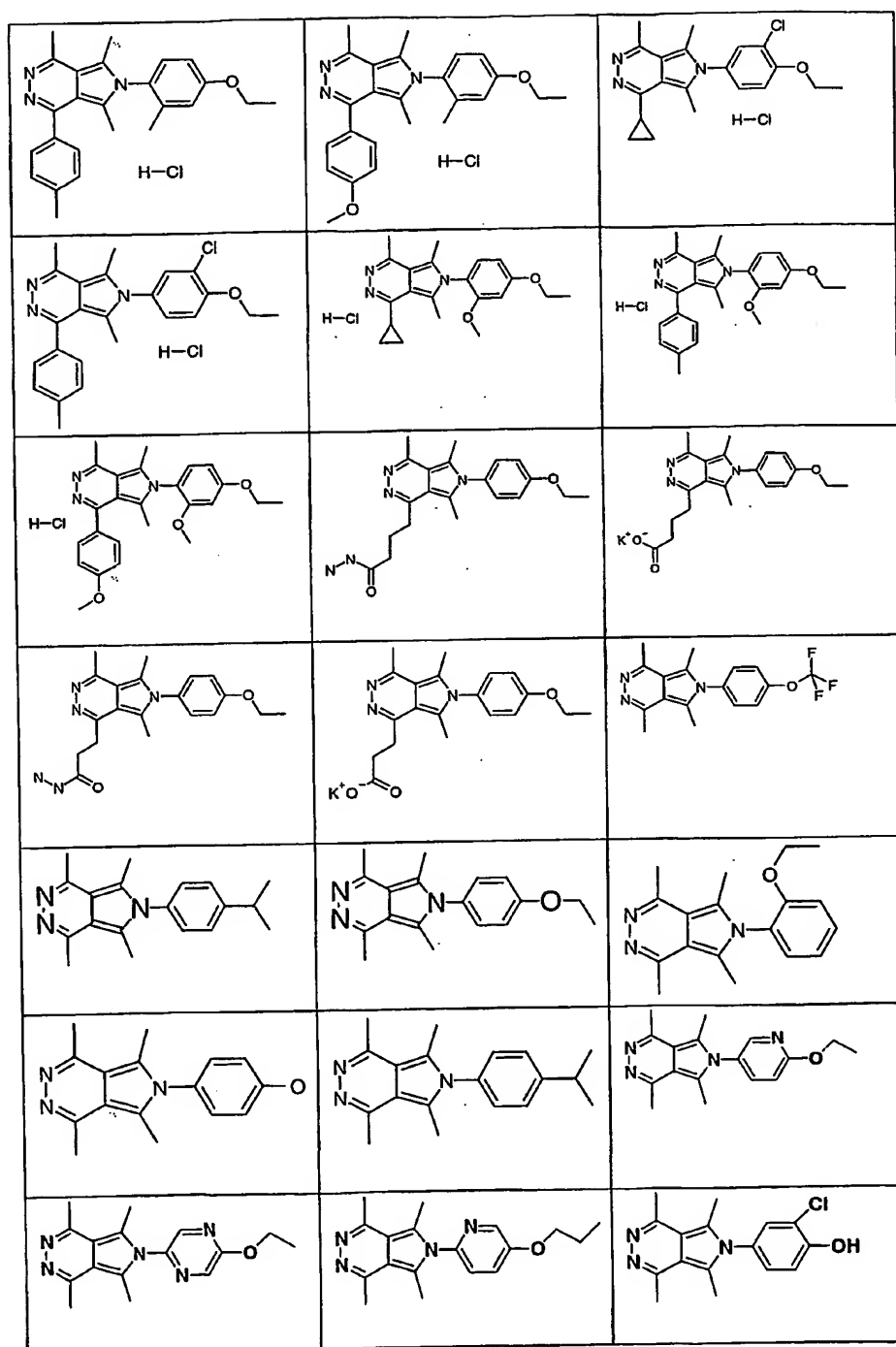
provided that the compound is not selected from the following table:

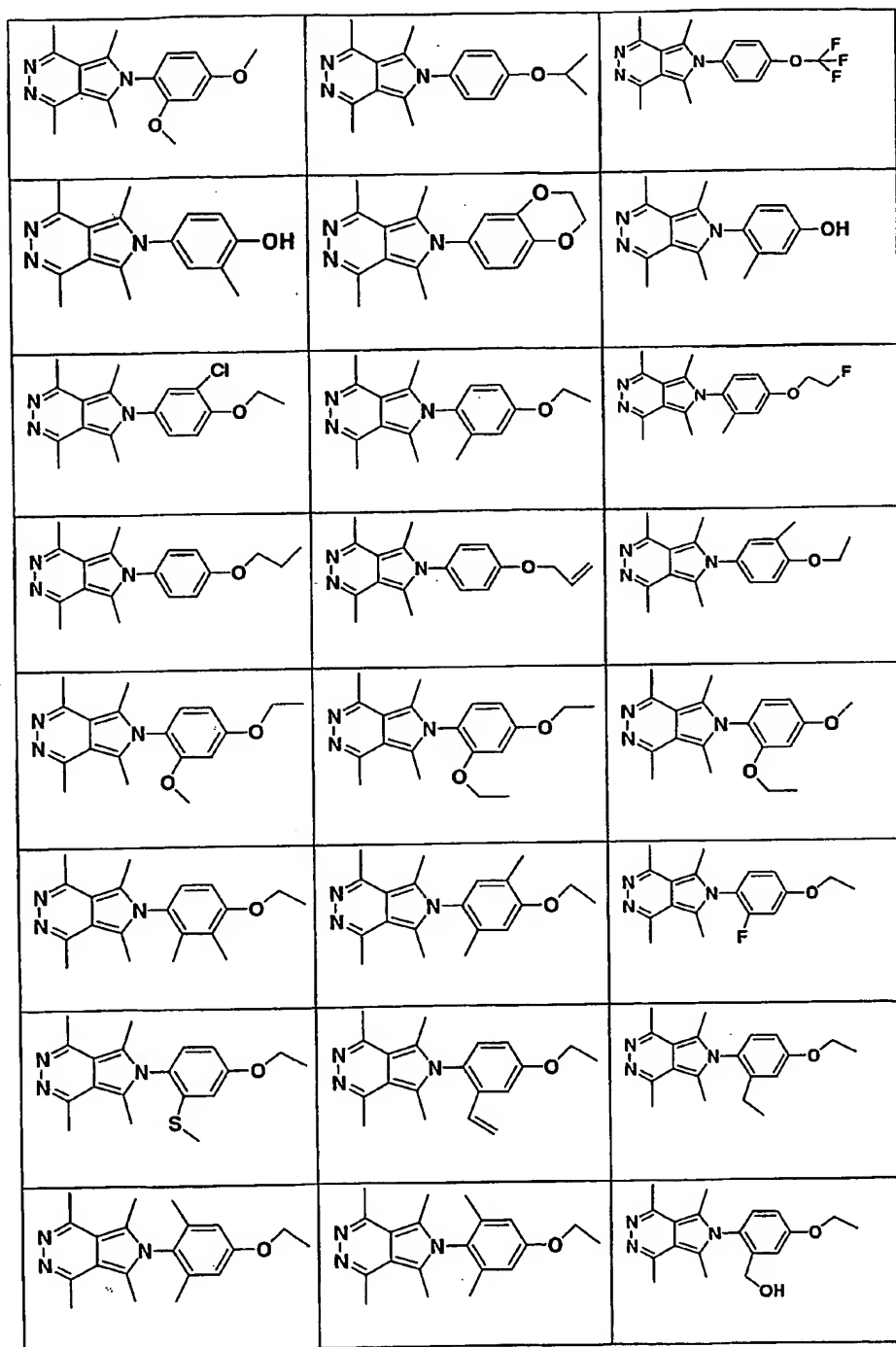


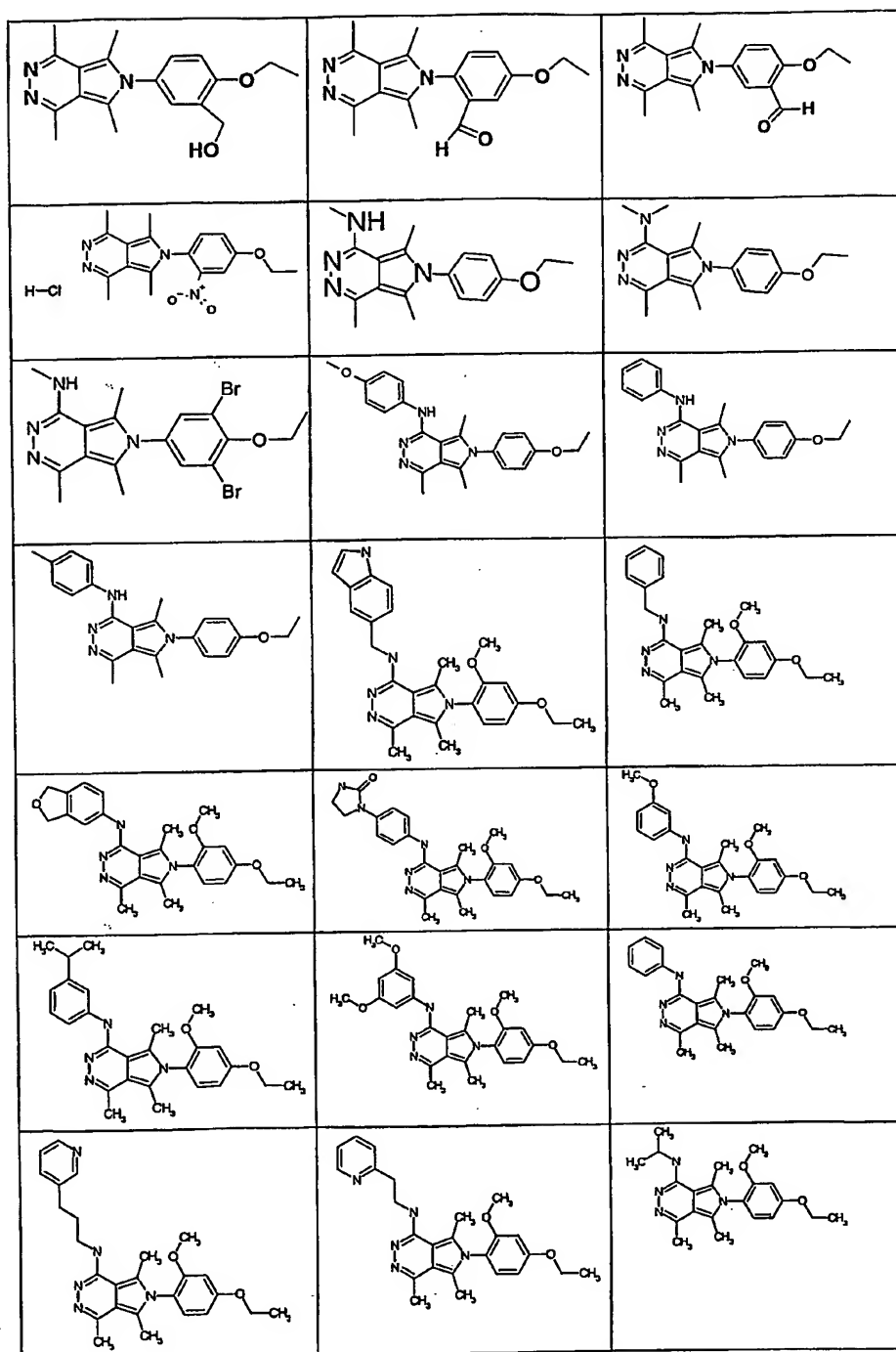
2. The method according to Claim 1, wherein R<sup>1</sup> is -C<sub>0-6</sub>alkyl-aryl.
3. The method according to Claim 2, wherein R<sup>1</sup> is -C<sub>0-6</sub>alkyl-phenyl.
4. The method according to Claim 1, wherein the compound is selected from:

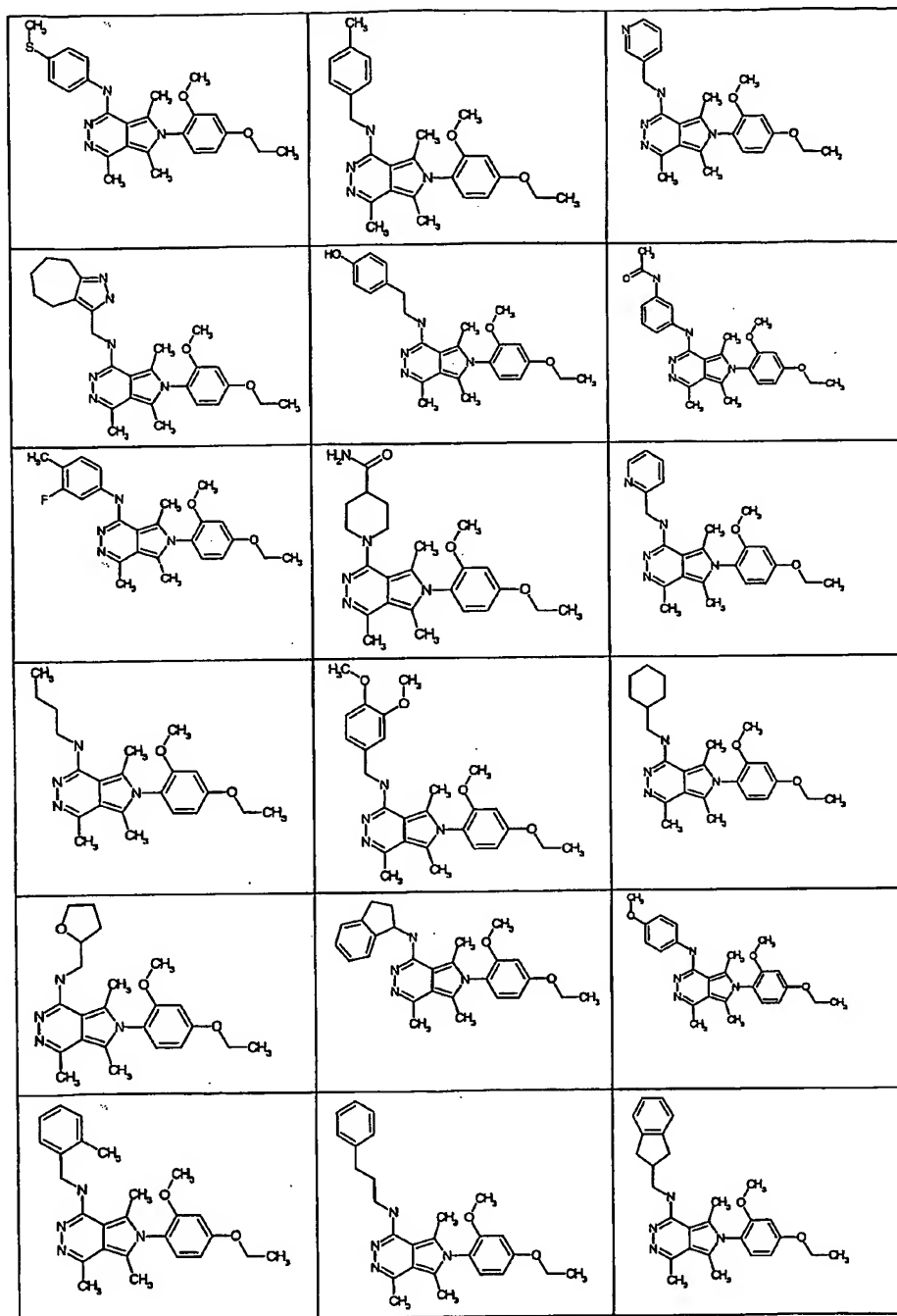




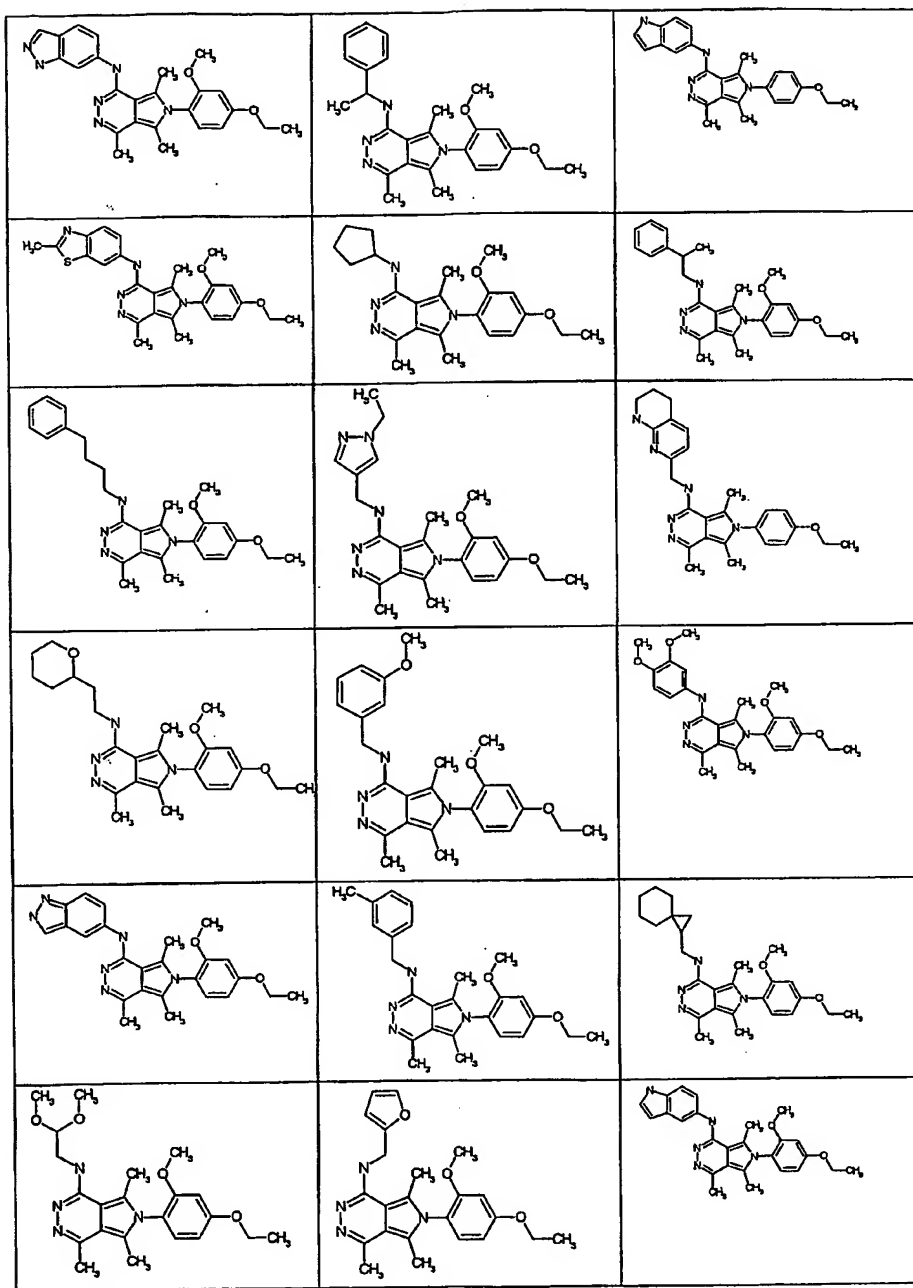


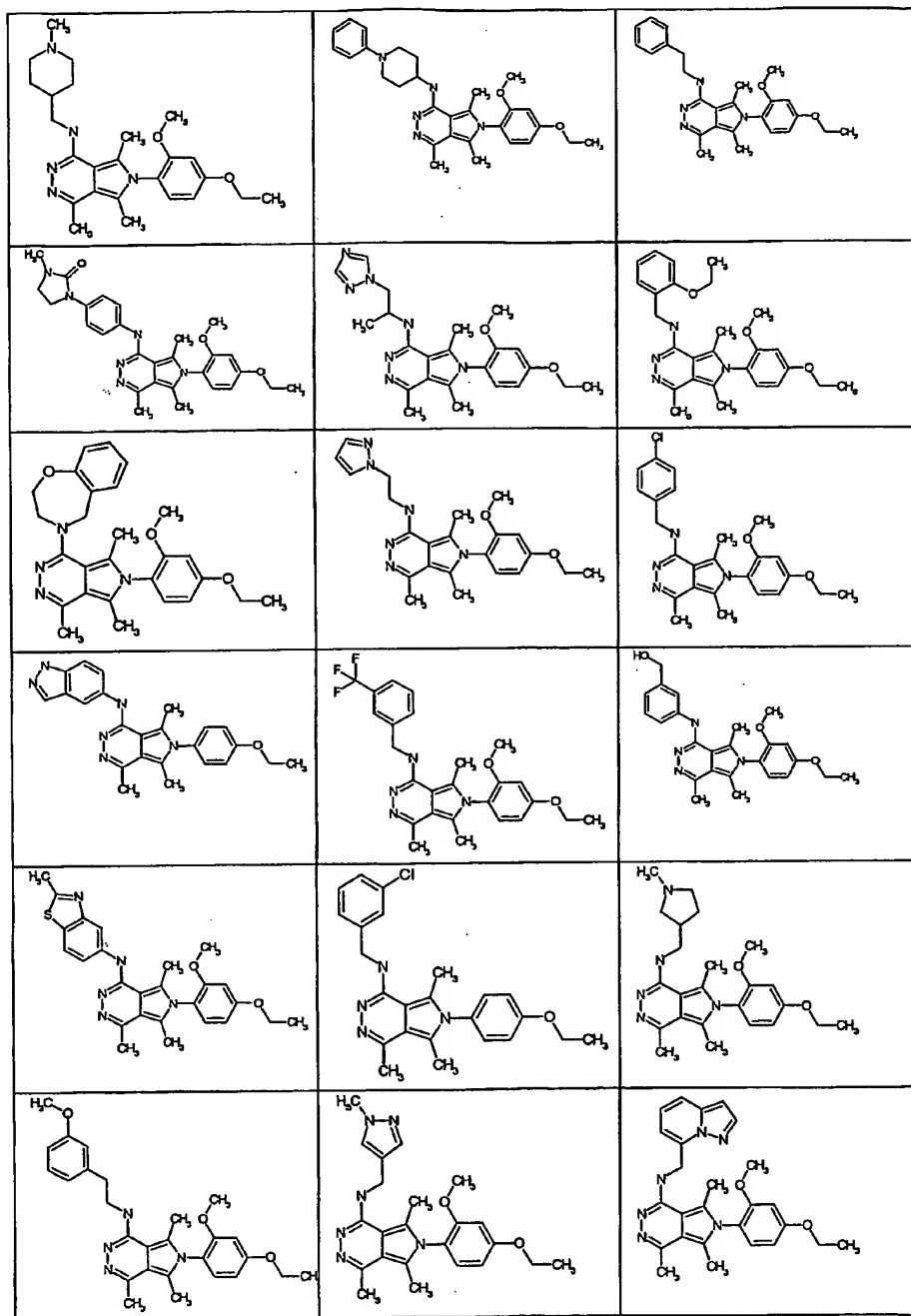


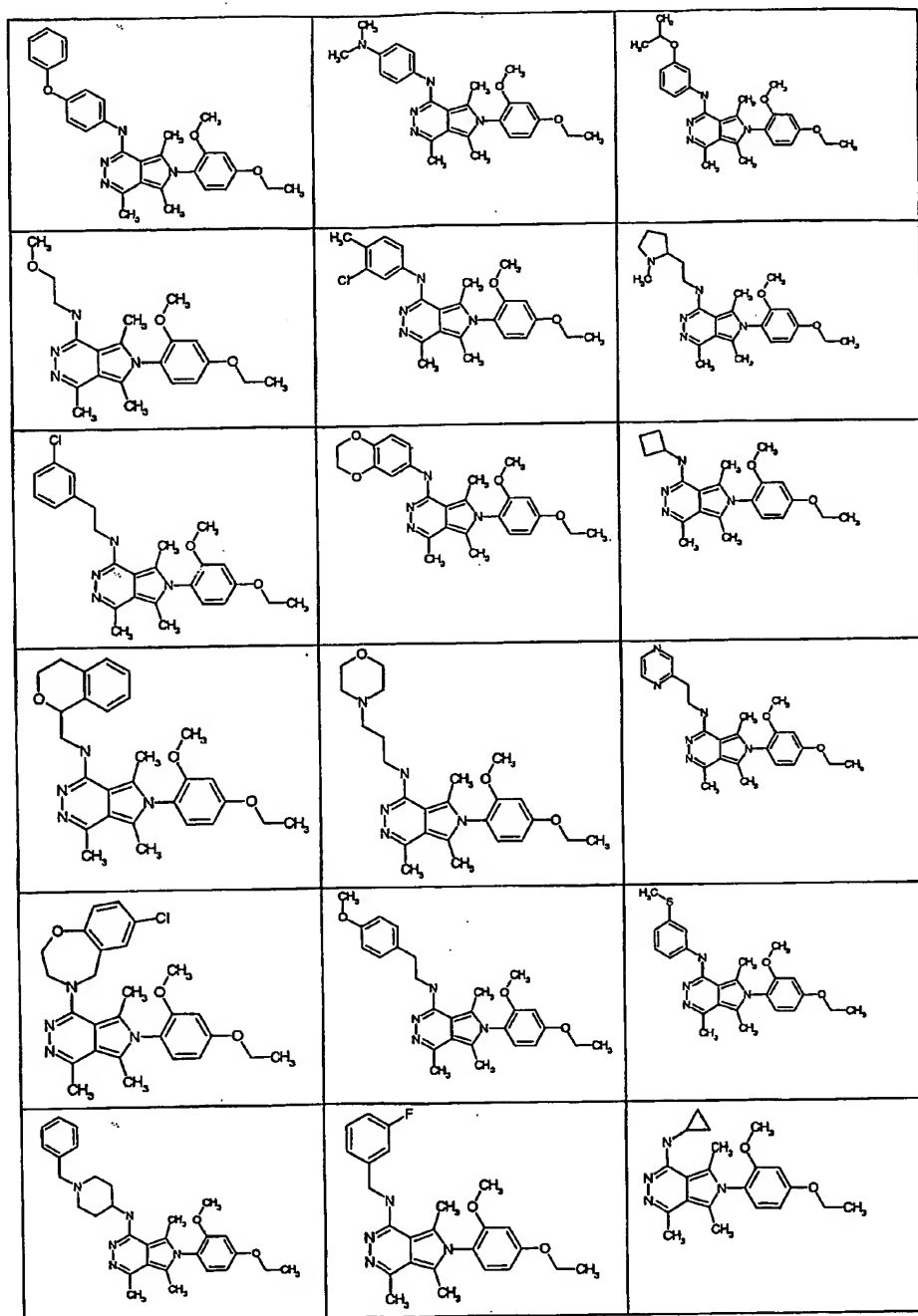


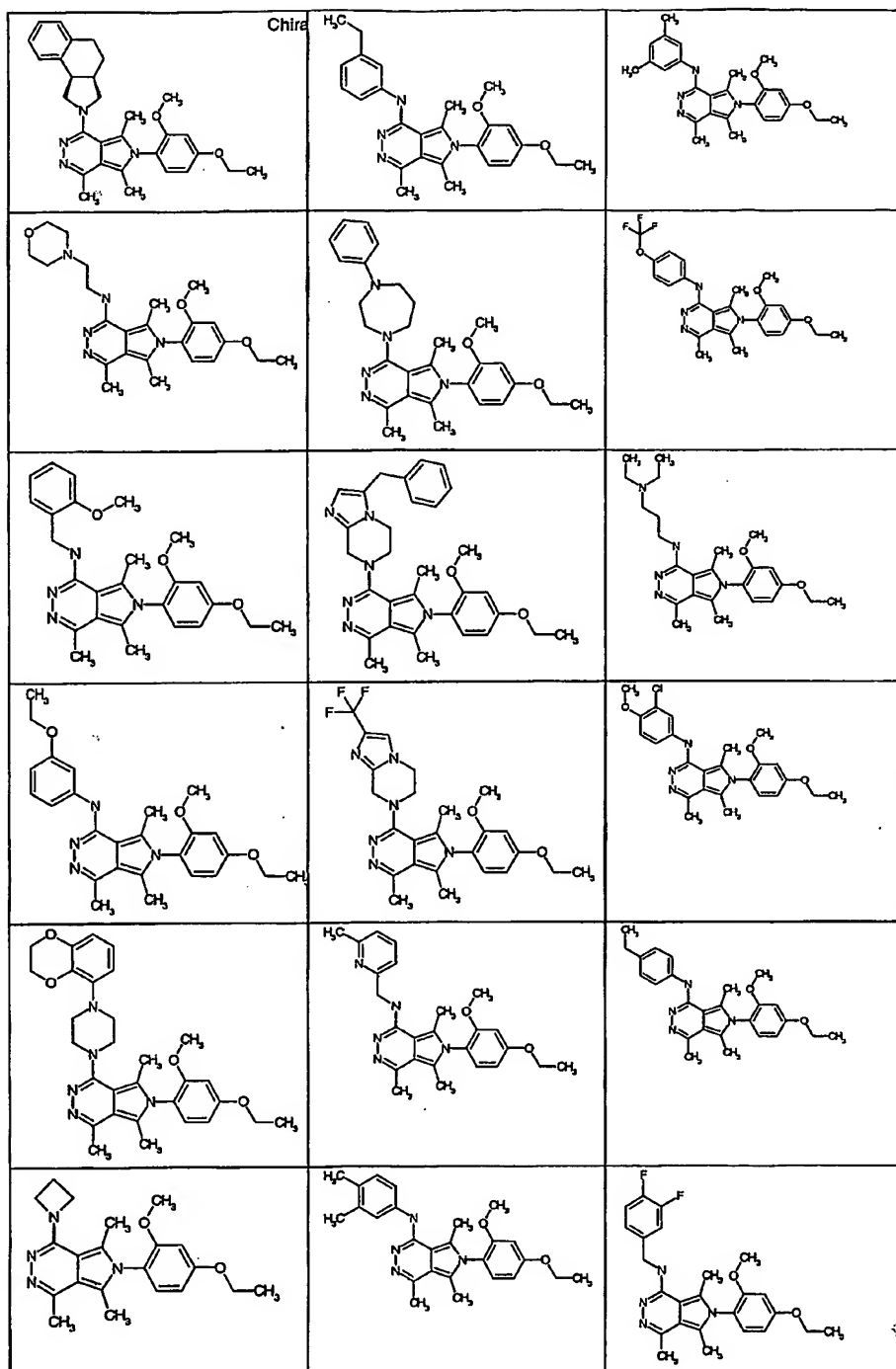


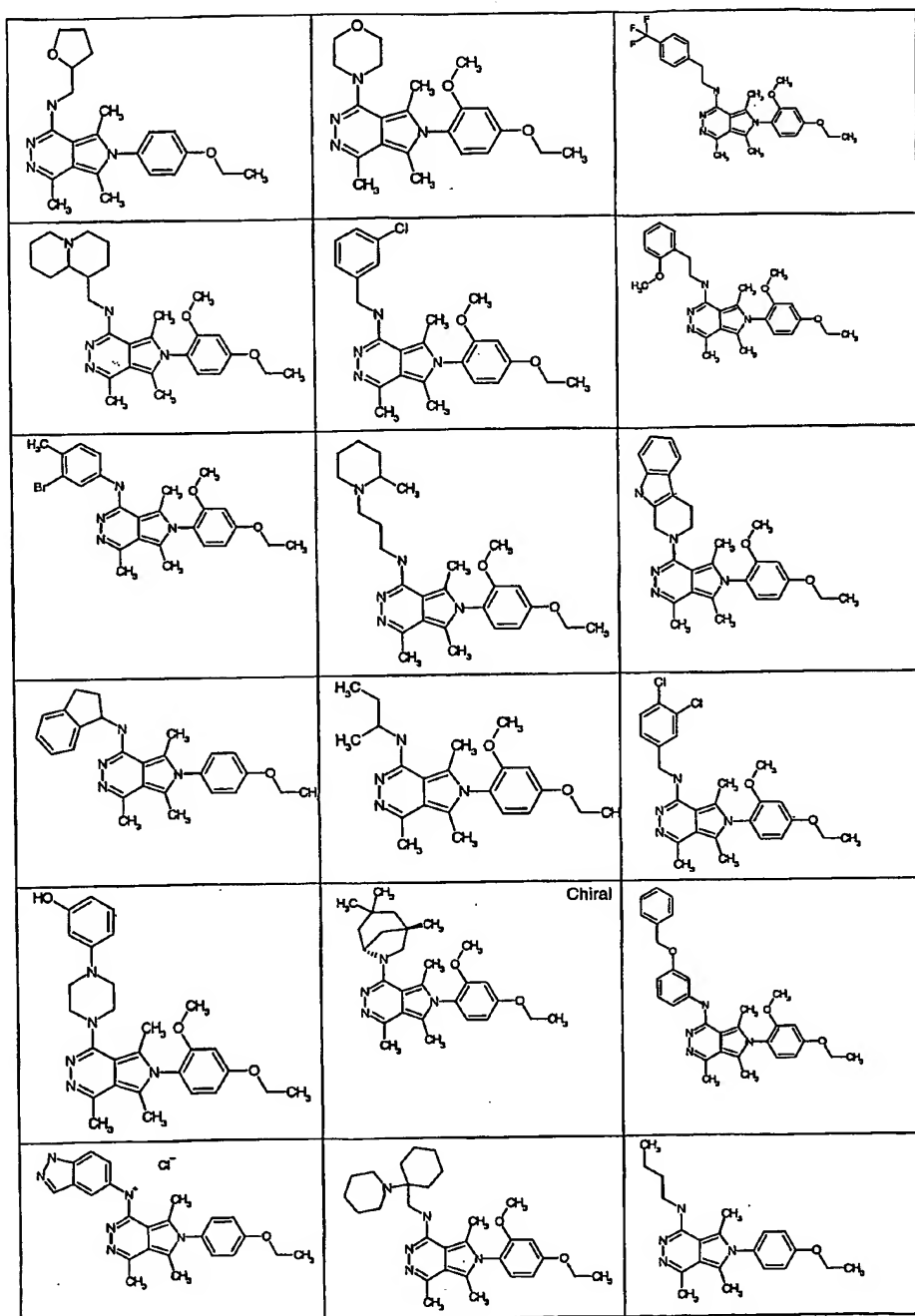


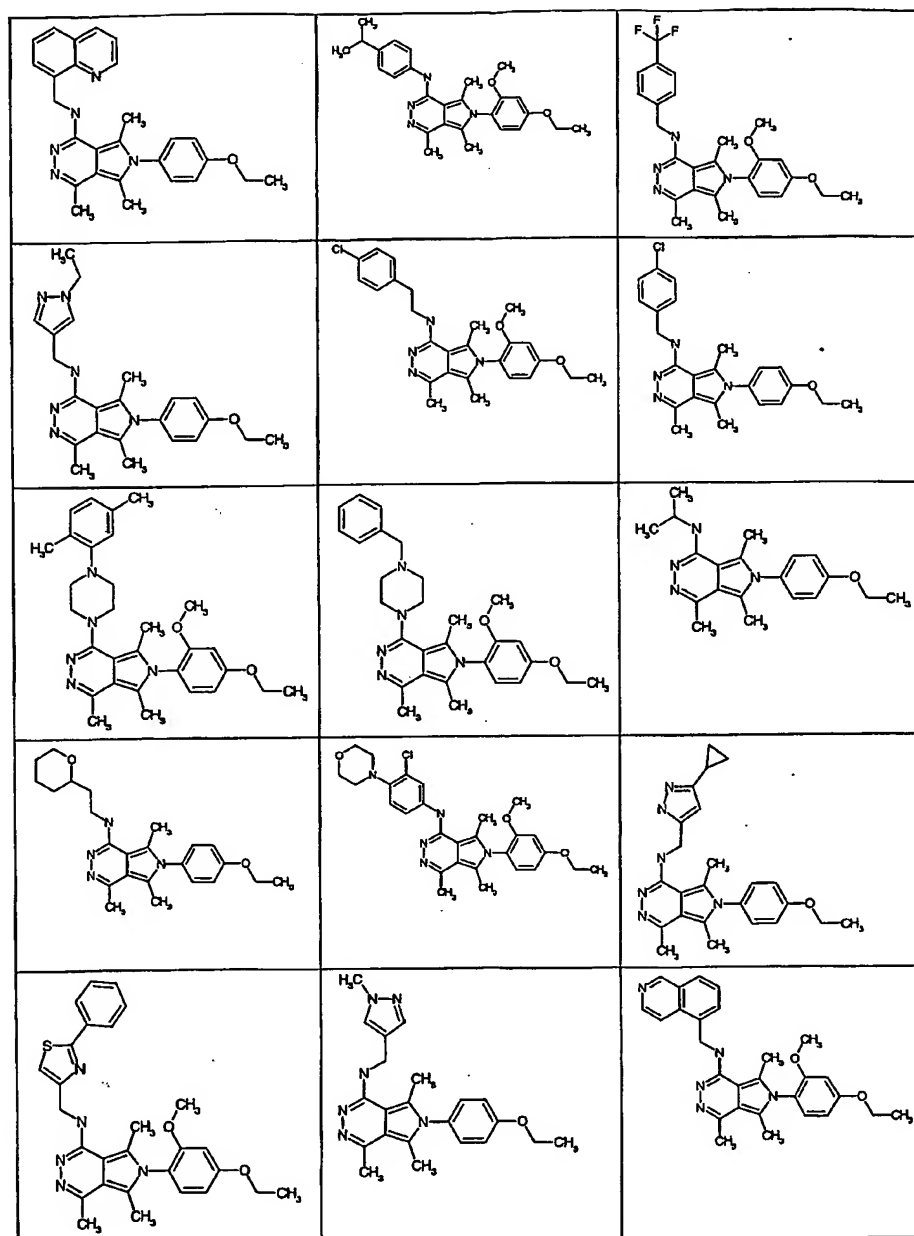


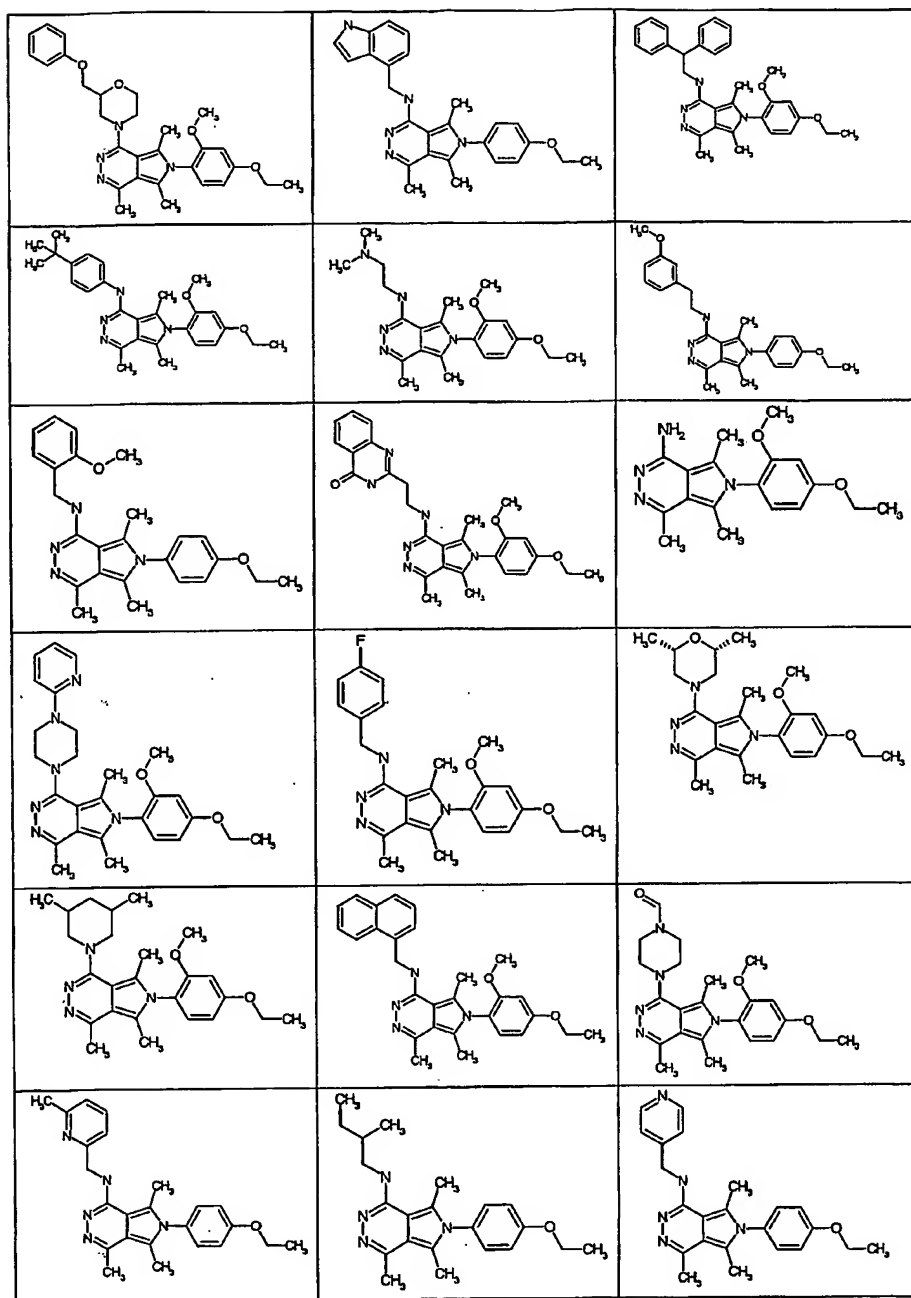


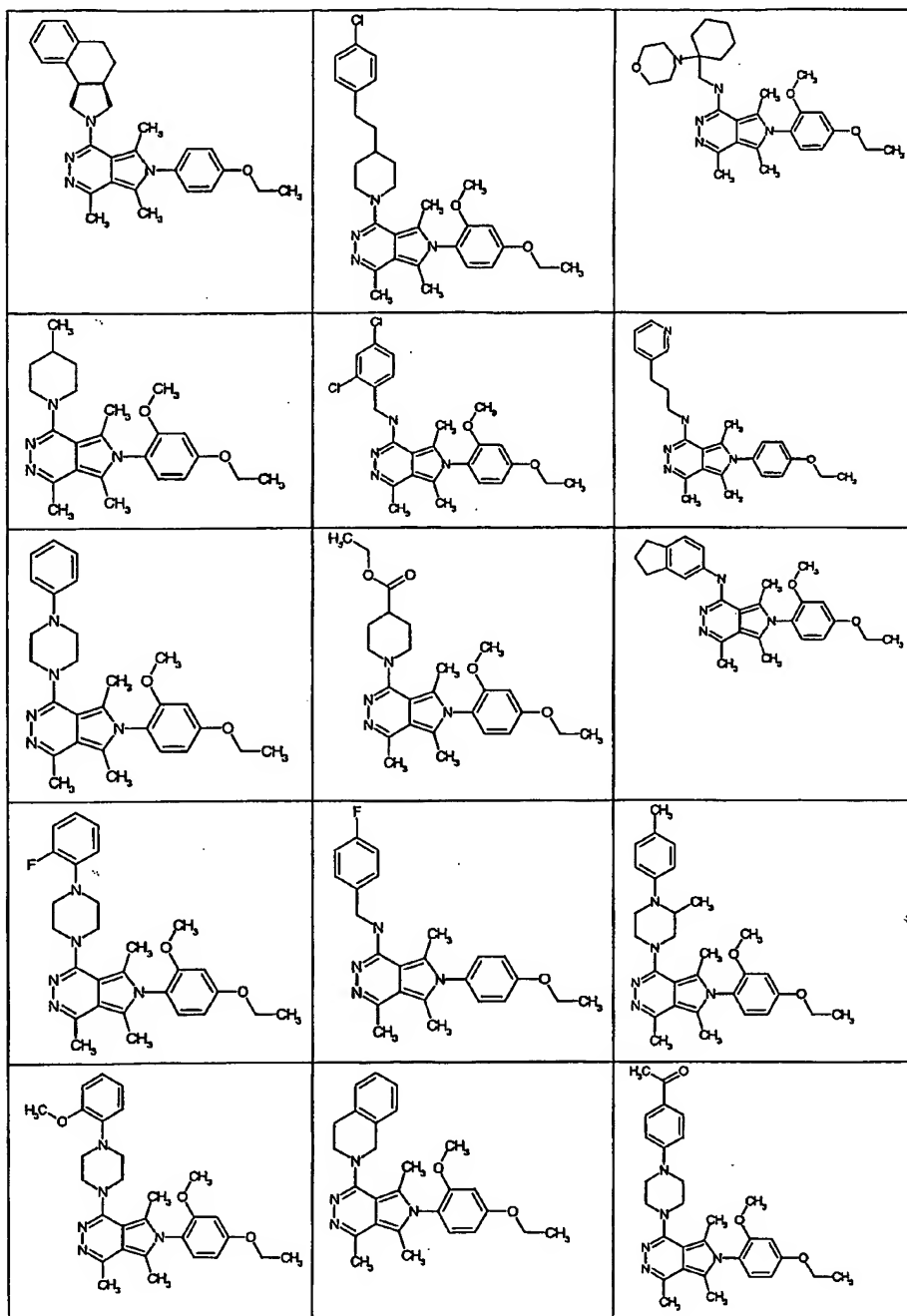




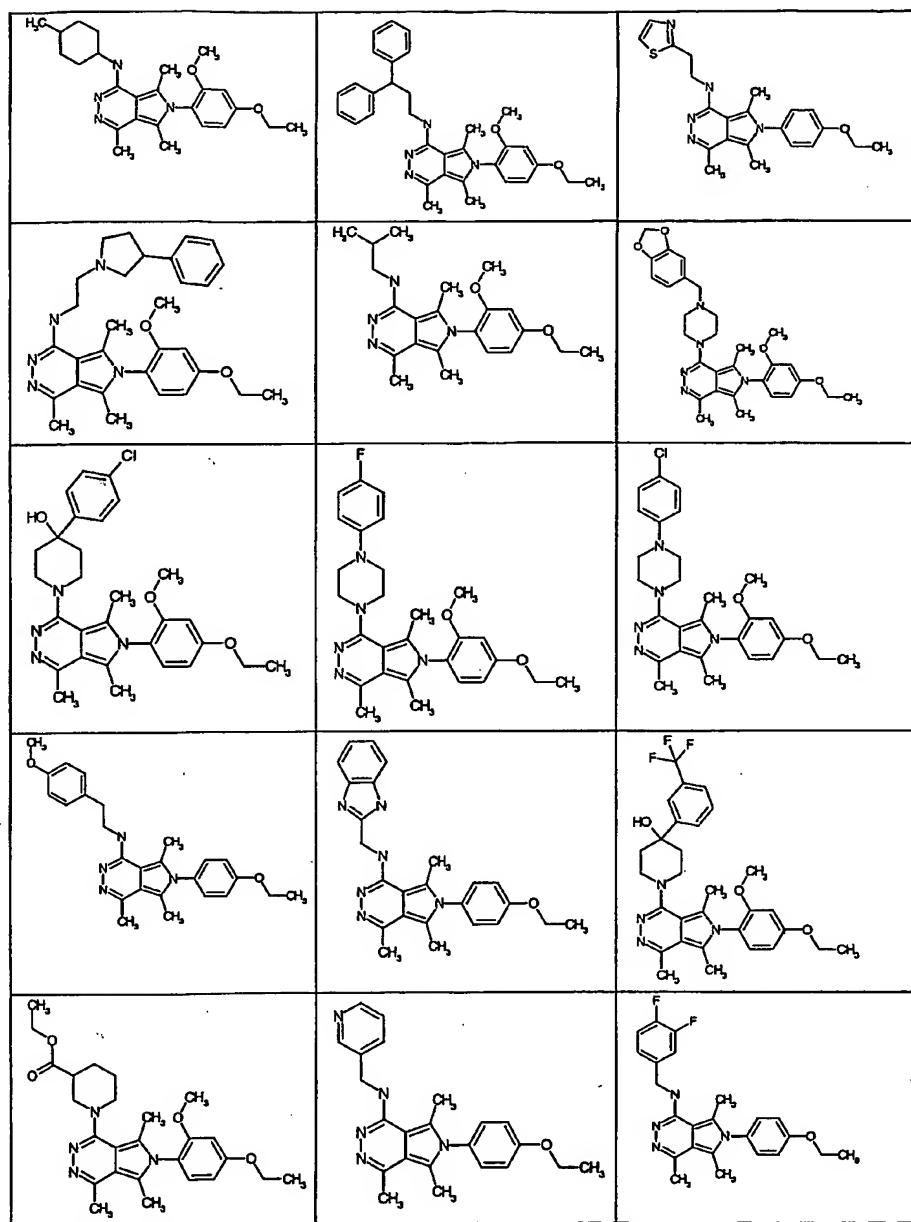


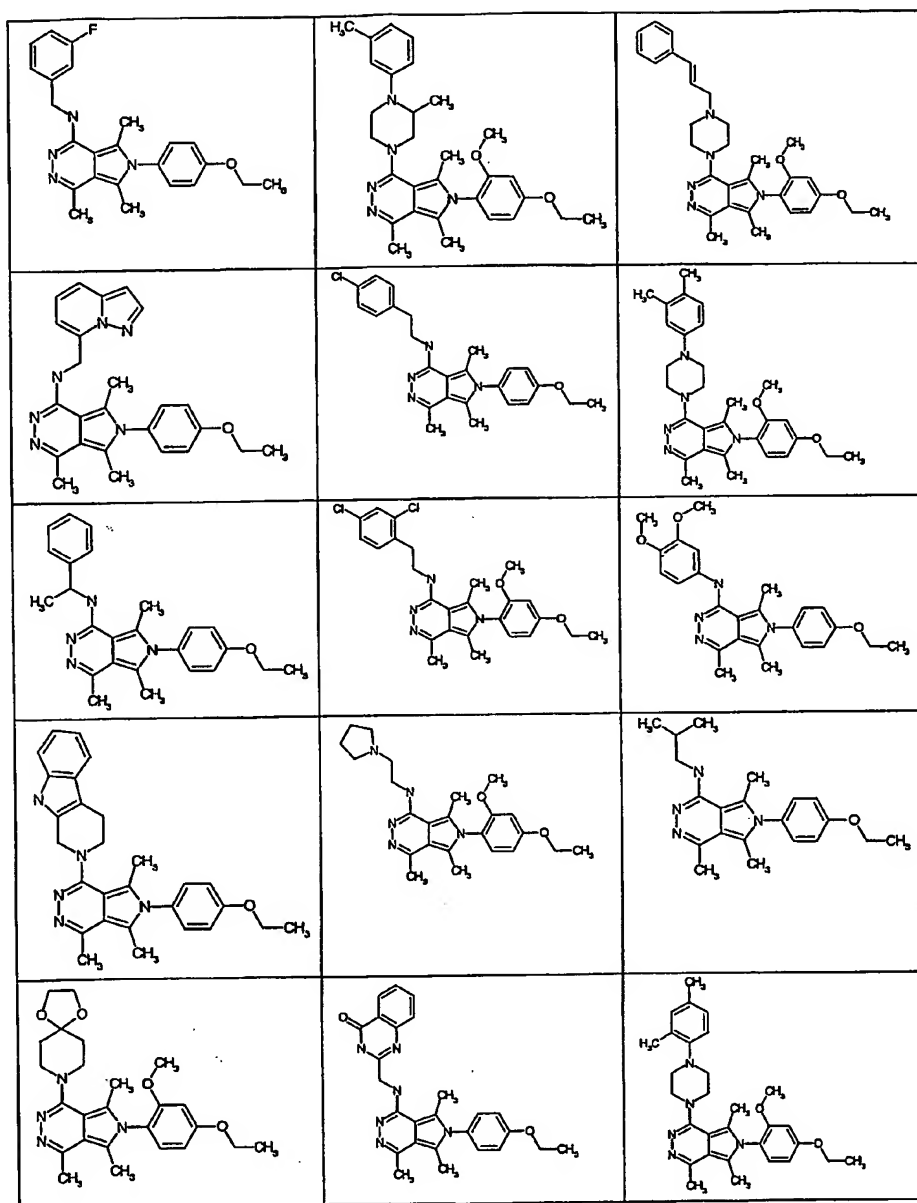


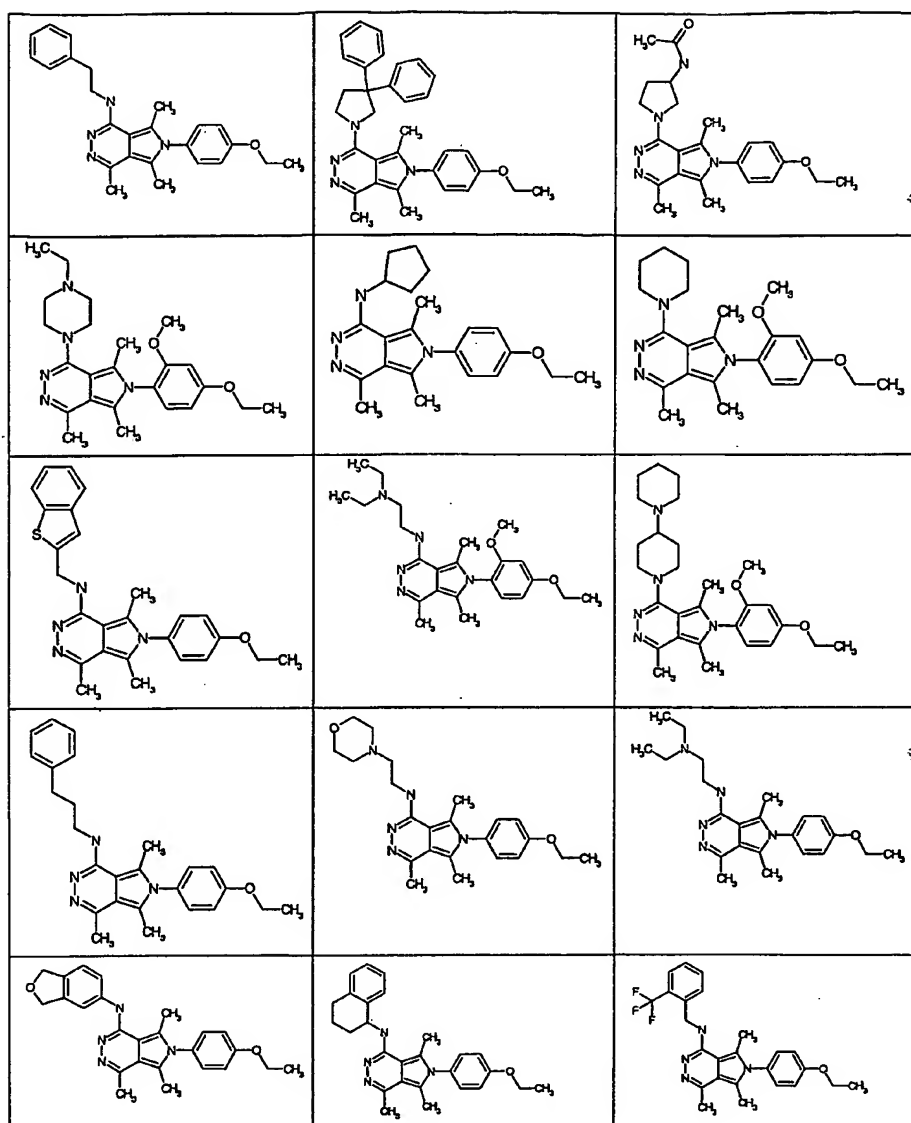


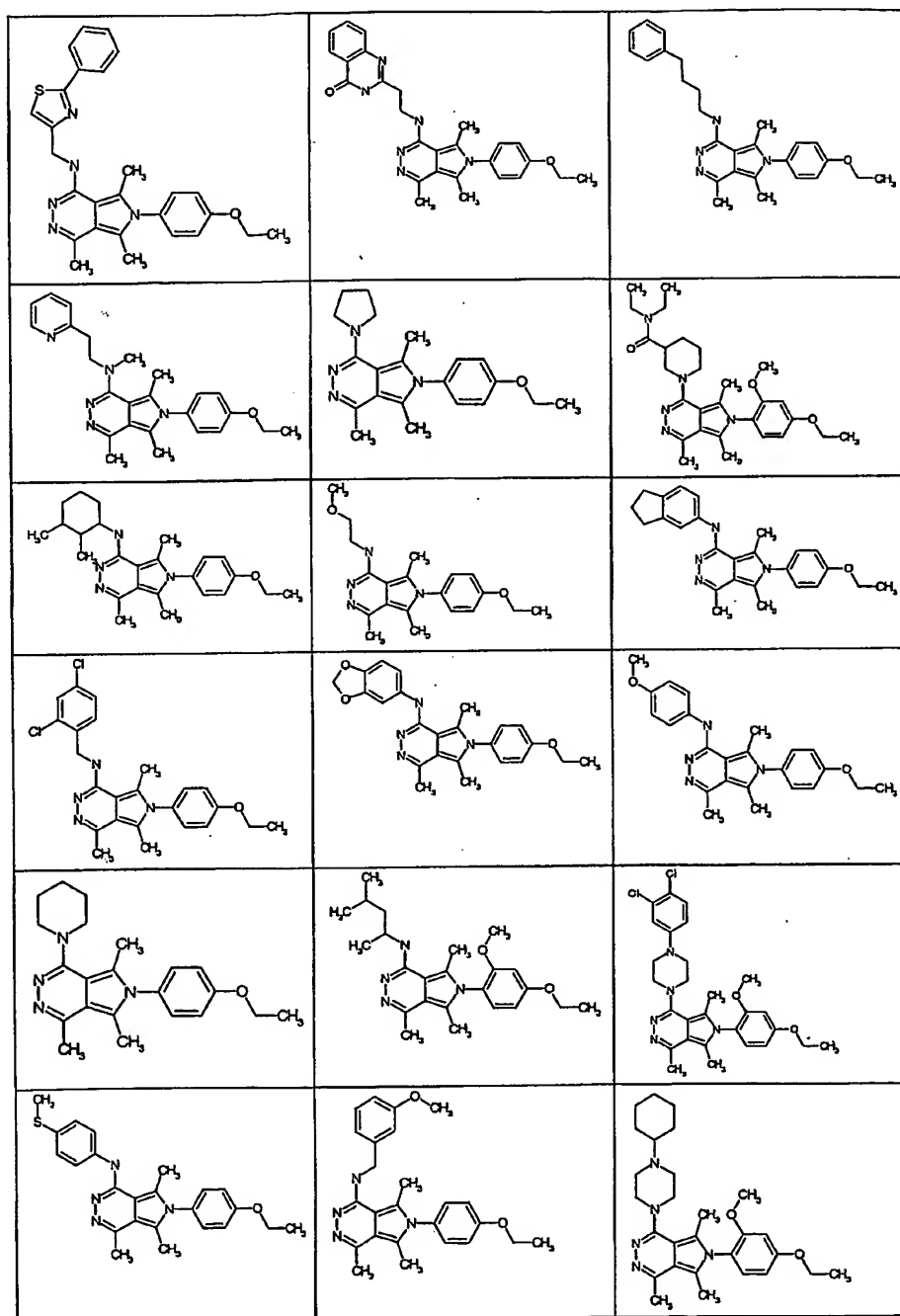


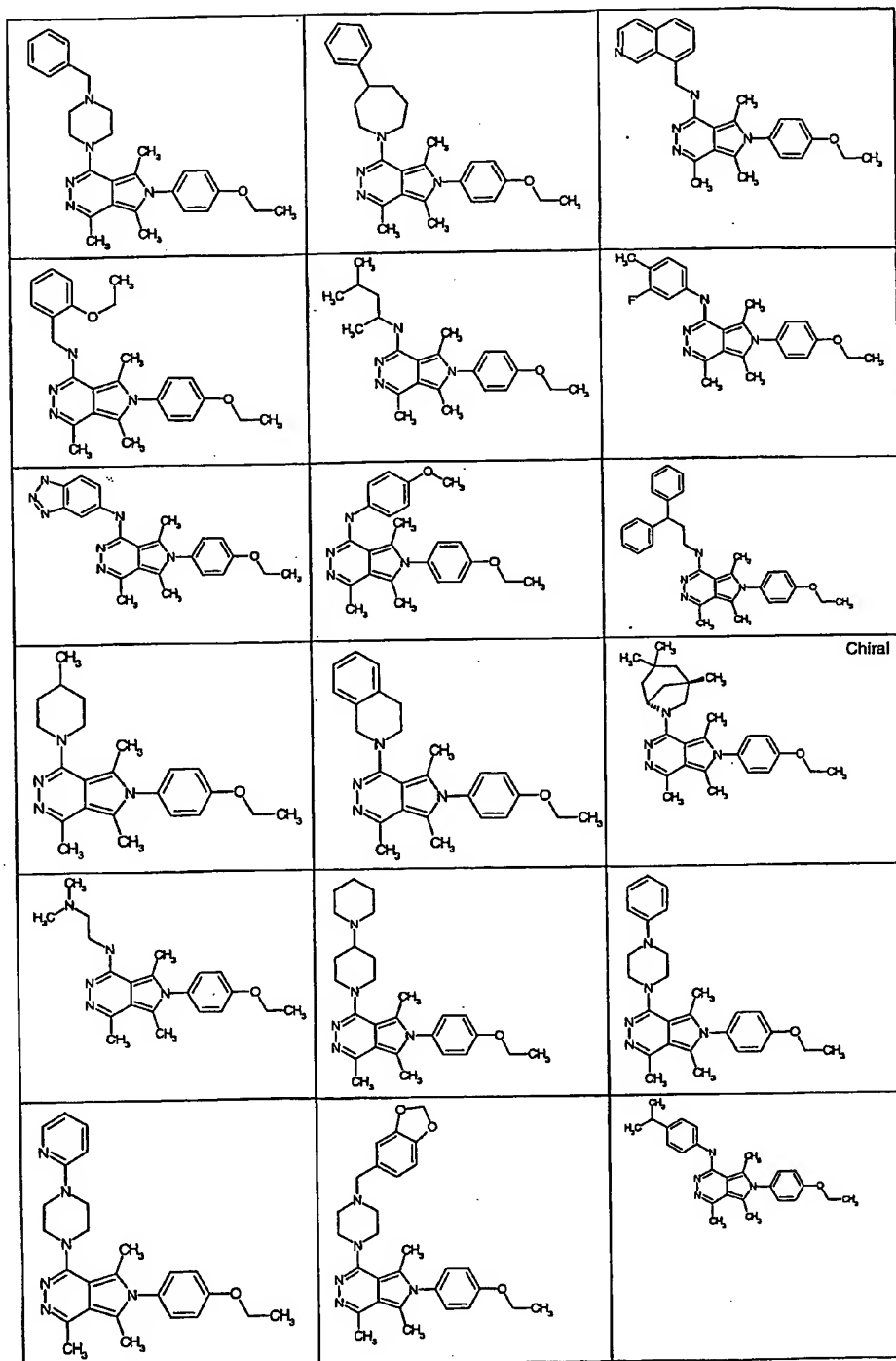




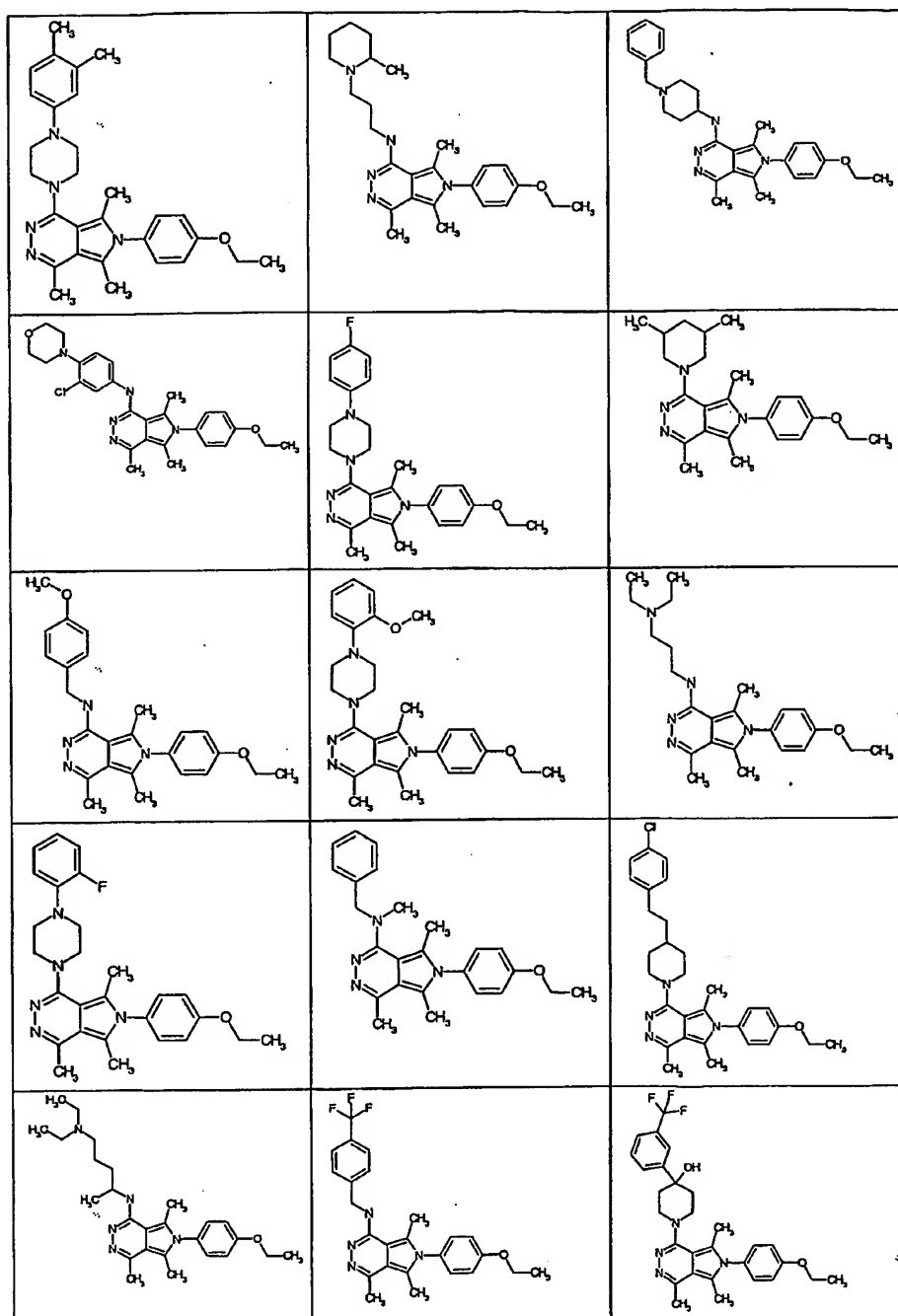


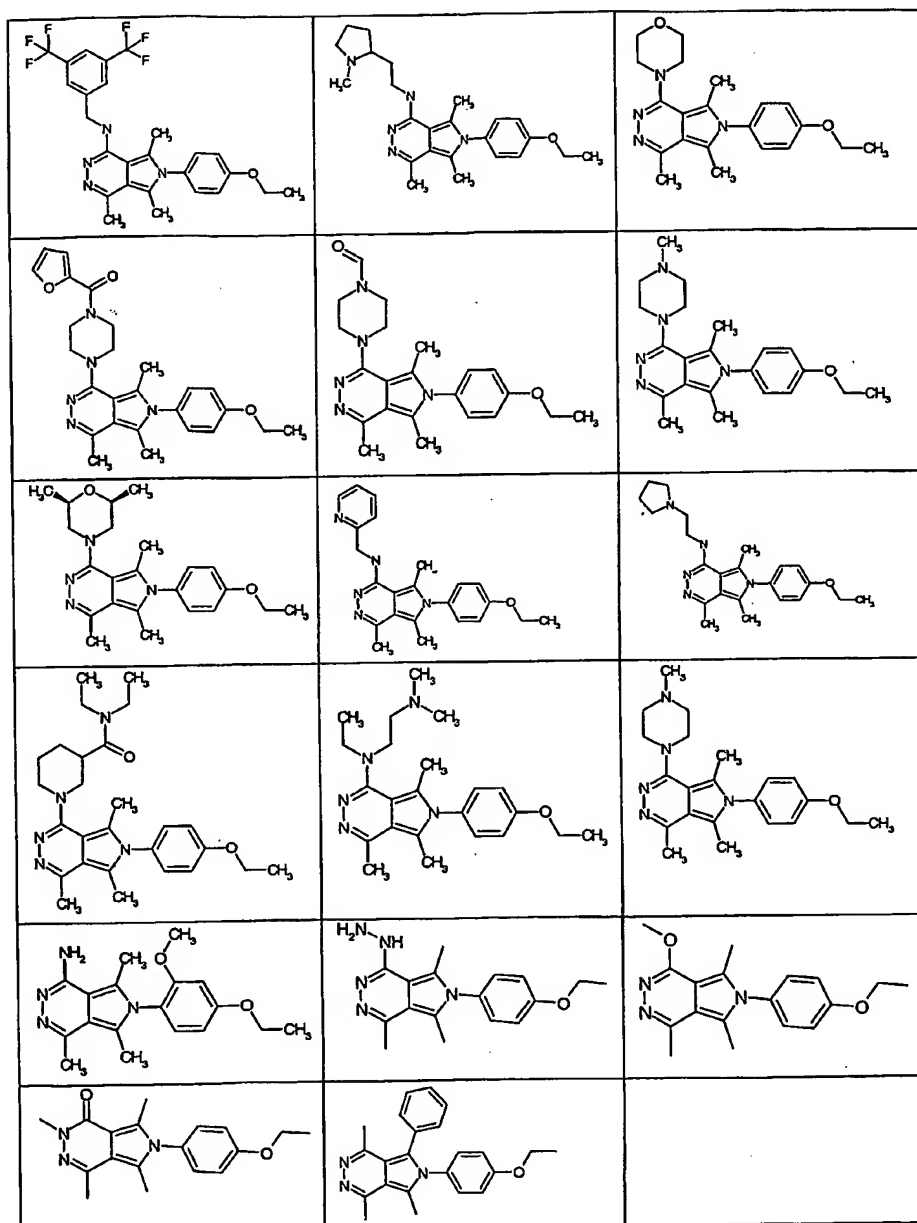






Chiral





or a pharmaceutically acceptable salt thereof.

5. A method of treatment of neuropathic pain comprising a step of administering an effective amount of a pharmaceutical composition comprising:

a therapeutically effective amount of the compound according to claim 1, or a pharmaceutically acceptable salt thereof; and  
a pharmaceutically acceptable carrier.

5                   6. The method according to claim 5, wherein said composition further comprising i) an opiate agonist, ii) an opiate antagonist, iii) an mGluR5 antagonist, iv) a 5HT receptor agonist, v) a 5HT receptor antagonist, vi) a sodium channel antagonist, vii) an NMDA receptor agonist, viii) an NMDA receptor antagonist, ix) a COX-2 selective inhibitor, x) an NK1 antagonist, xi) a non-steroidal anti-  
10 inflammatory drug, xii) a GABA-A receptor modulator, xiii) a dopamine agonist, xiv) a dopamine antagonist, xv) a selective serotonin reuptake inhibitor, xvi) a tricyclic antidepressant drug, xvii) a norepinephrine modulator, xviii) L-DOPA, xix) buspirone, xx) a lithium salt, xxi) valproate, xxii) neurontin, xxiii) olanzapine, xxiv) a  
15 muscarinic agonist, xxv) a nicotinic antagonist, xxvi) a muscarinic agonist, xxvii) a muscarinic antagonist, xxviii) a selective serotonin and norepinephrine reuptake inhibitor (SSNRI), xxix) a heroin substituting drug, xxx) disulfiram, or xxxi) acamprosate.

20                   7. The method according to claim 6, wherein said heroin substituting drug is methadone, levo-alpha-acetylmethadol, buprenorphine or naltrexone.

25                   8. A method of treatment or prevention of pain comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

30                   9. A method of treatment or prevention of a pain disorder wherein said pain disorder is acute pain, persistent pain, chronic pain, inflammatory pain, or neuropathic pain, comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

35                   10. A method of treatment or prevention of anxiety, depression, bipolar disorder, psychosis, drug withdrawal, tobacco withdrawal, memory loss, cognitive impairment, dementia, Alzheimer's disease, schizophrenia or panic comprising the



step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

- 5                    11. A method of treatment or prevention of disorders of  
extrapyramidal motor function comprising the step of administering a therapeutically  
effective amount, or a prophylactically effective amount, of the compound according  
to claim 1 or a pharmaceutically acceptable salt thereof.
- 10                   12. The method of claim 11 wherein said disorder of extrapyramidal  
motor function is Parkinson's disease, progressive supramuscular palsy, Huntington's  
disease, Gilles de la Tourette syndrome, or tardive dyskinesia.
- 15                   13. A method of treatment or prevention of anxiety disorders  
comprising the step of administering a therapeutically effective amount, or a  
prophylactically effective amount, of the compound according to claim 1 or a  
pharmaceutically acceptable salt thereof.
- 20                   14. The method of claim 13 wherein said anxiety disorder is panic  
attack, agoraphobia or specific phobias, obsessive-compulsive disorders, post-  
traumatic stress disorder, acute stress disorder, generalized anxiety disorder, eating  
disorder, substance-induced anxiety disorder, or nonspecified anxiety disorder.
- 25                   15. A method of treatment or prevention of neuropathic pain  
comprising the step of administering a therapeutically effective amount, or a  
prophylactically effective amount, of the compound according to claim 1 or a  
pharmaceutically acceptable salt thereof.
- 30                   16. A method of treatment or prevention of Parkinson's Disease  
comprising the step of administering a therapeutically effective amount, or a  
prophylactically effective amount, of the compound according to claim 1 or a  
pharmaceutically acceptable salt thereof.
- 35                   17. A method of treatment or prevention of depression comprising the  
step of administering a therapeutically effective amount, or a prophylactically

effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

18. A method of treatment or prevention of epilepsy comprising the  
5 step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

19. A method of treatment or prevention of inflammatory pain  
10 comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

20. A method of treatment or prevention of cognitive dysfunction  
15 comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

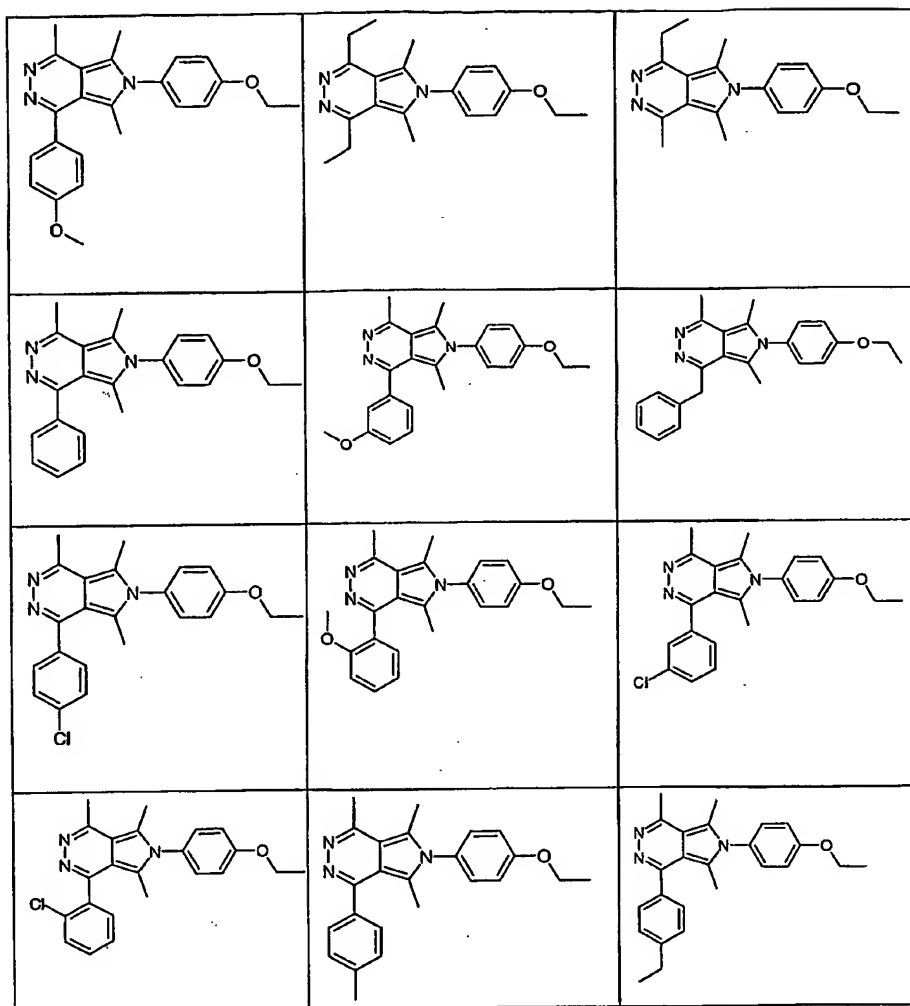
21. A method of treatment or prevention of drug addiction, drug abuse  
20 and drug withdrawal comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

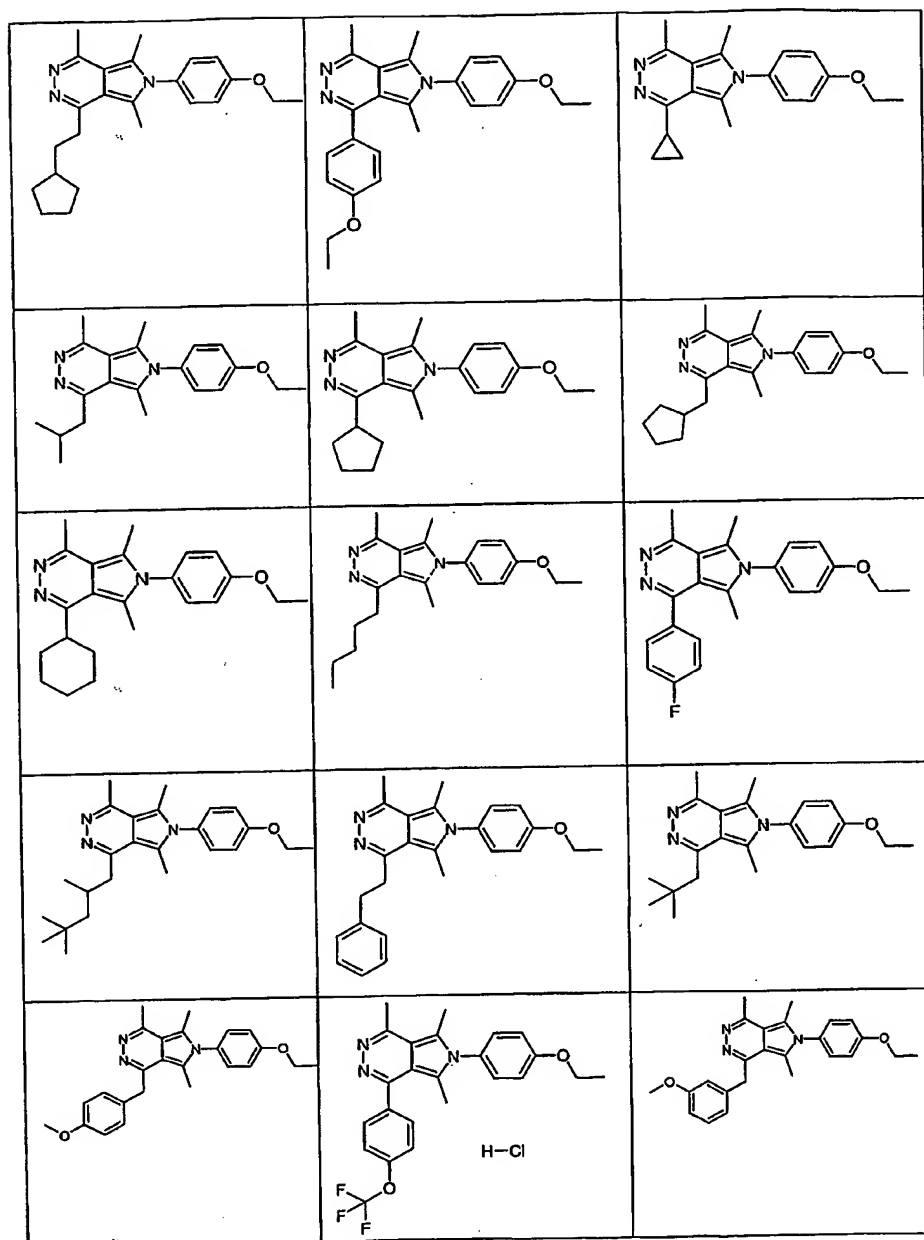
22. A method of treatment or prevention of bipolar disorders  
25 comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

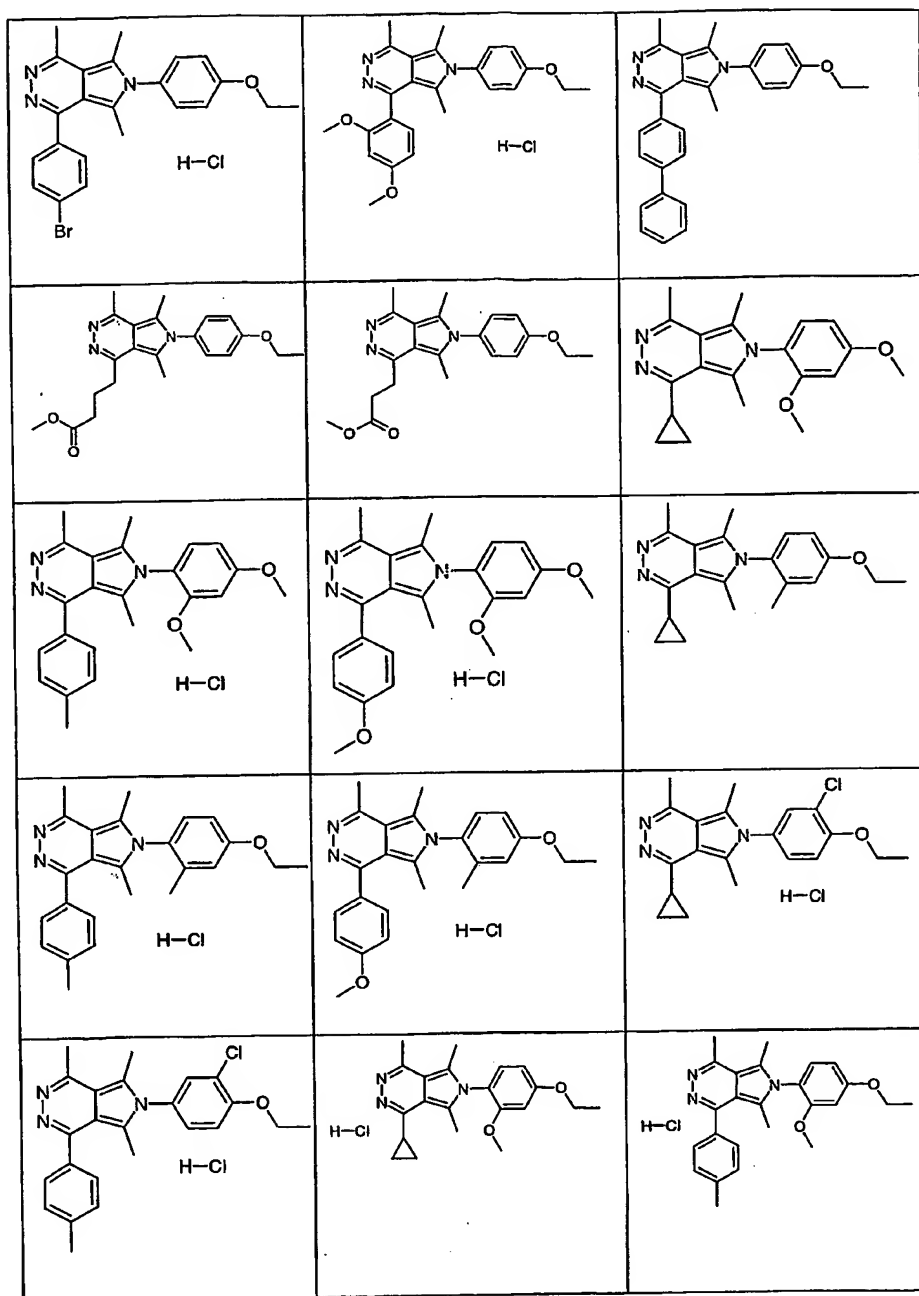
23. A method of treatment or prevention of circadian rhythm and sleep  
30 disorders comprising the step of administering a therapeutically effective amount, or a prophylactically effective amount, of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

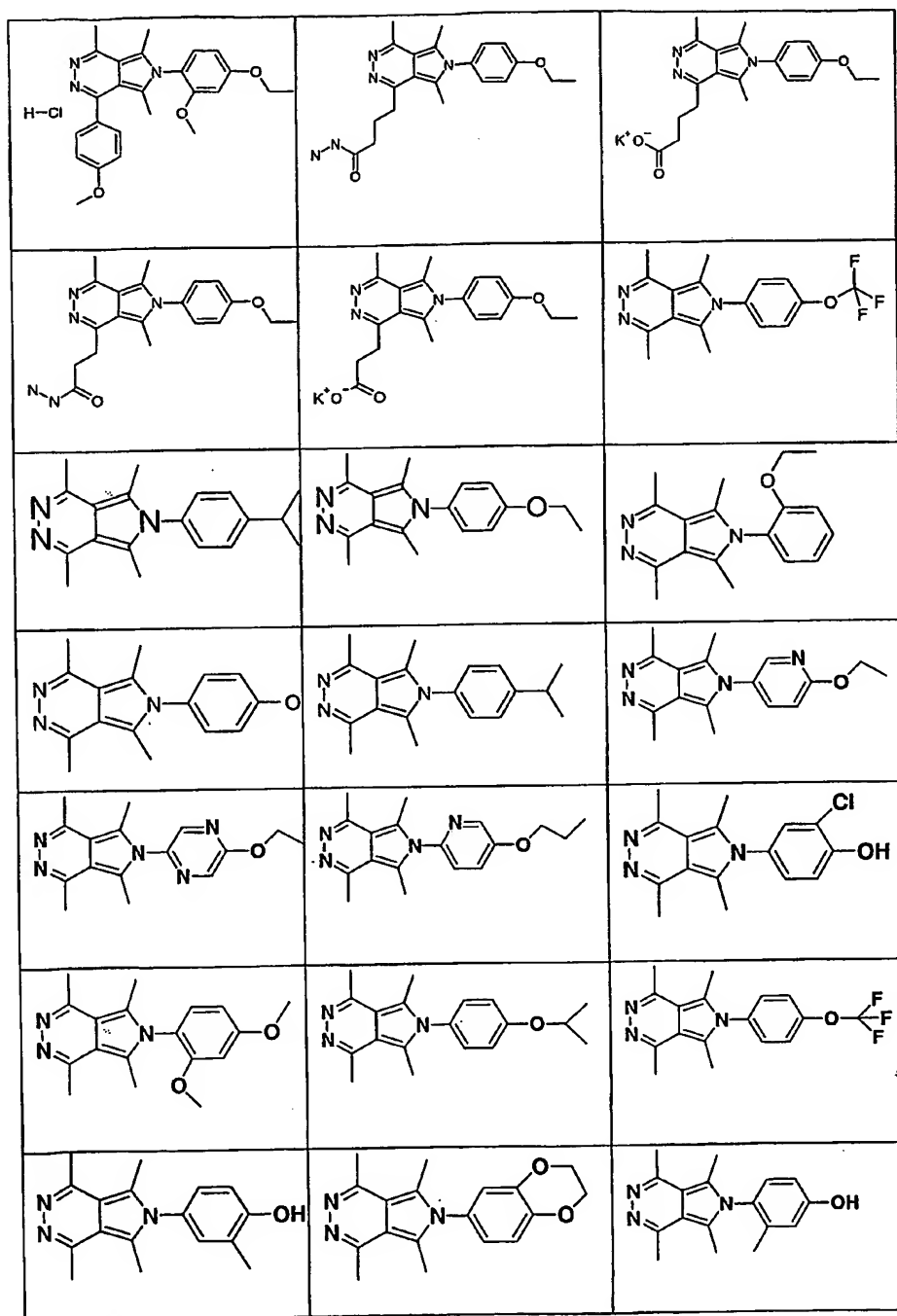
24. The method of Claim 23 wherein the circadian rhythm and sleep  
35 disorders are shift-work induced sleep disorder or jet-lag.

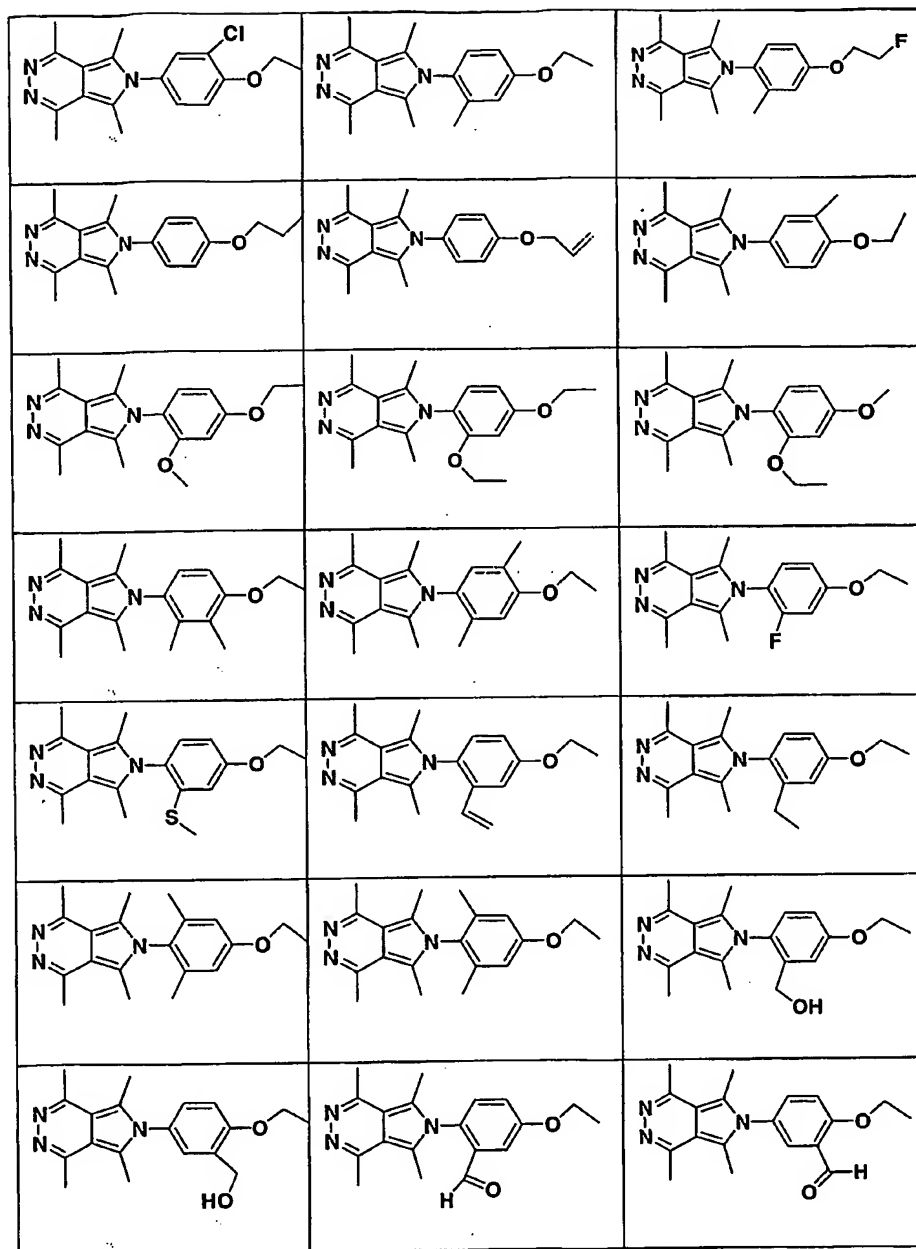
25. A compound selected from:

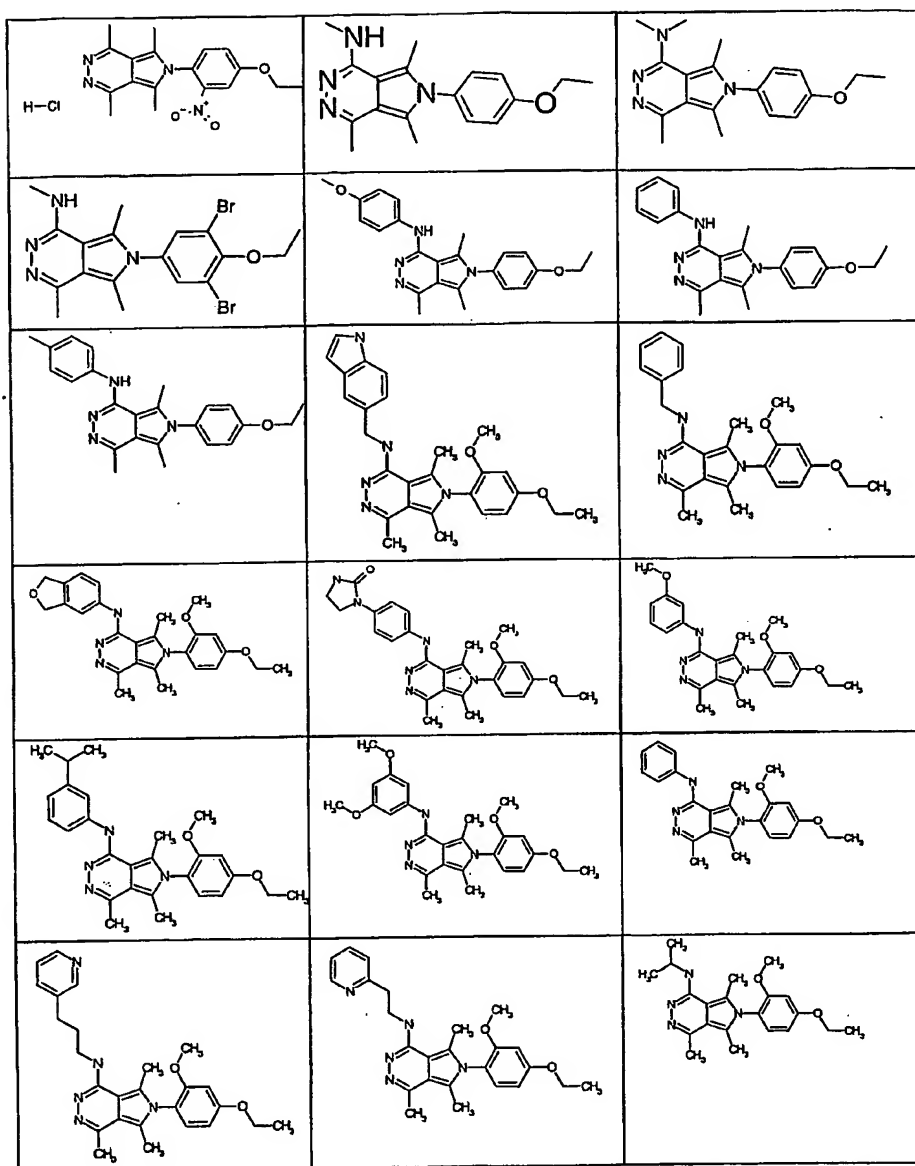




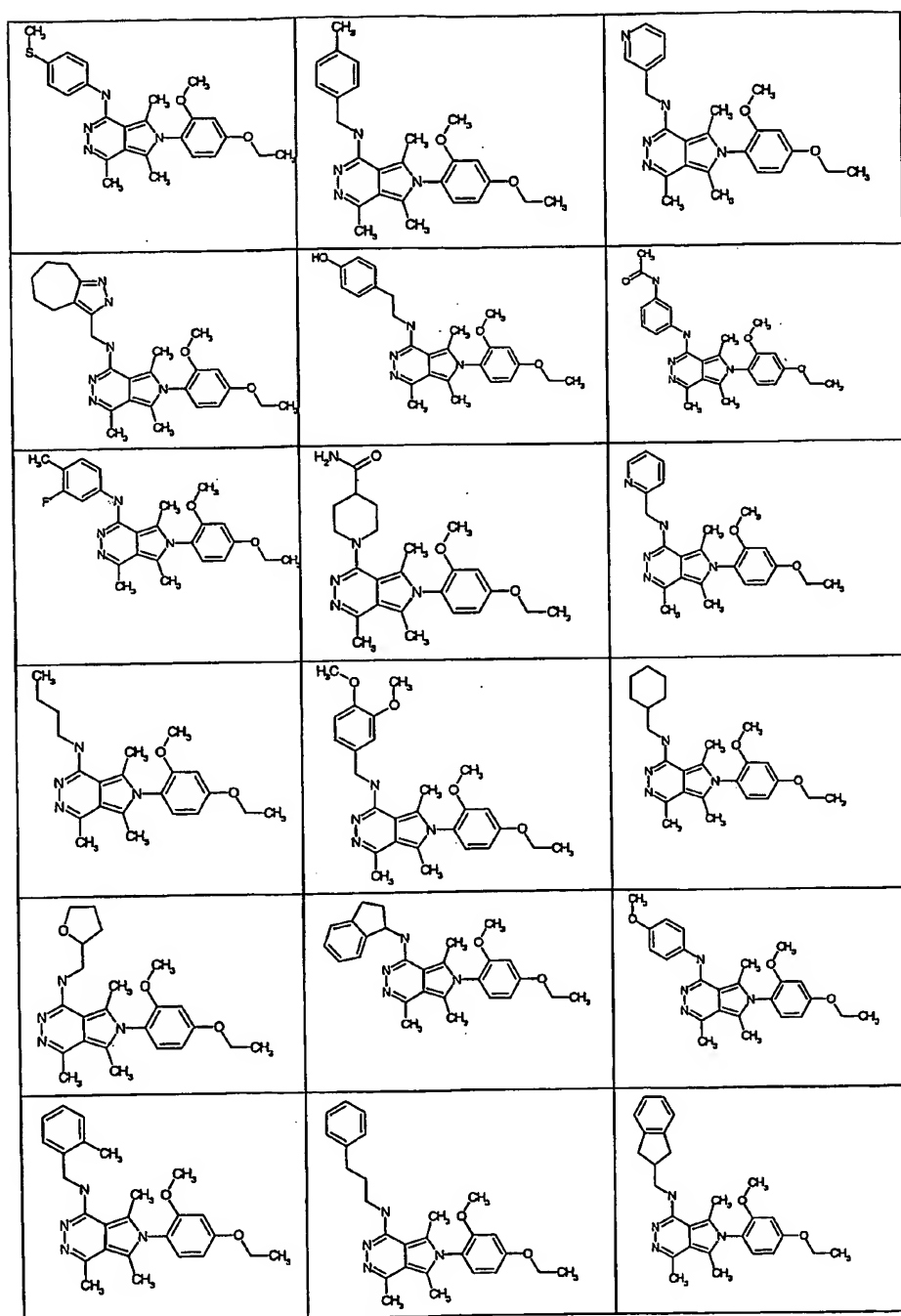


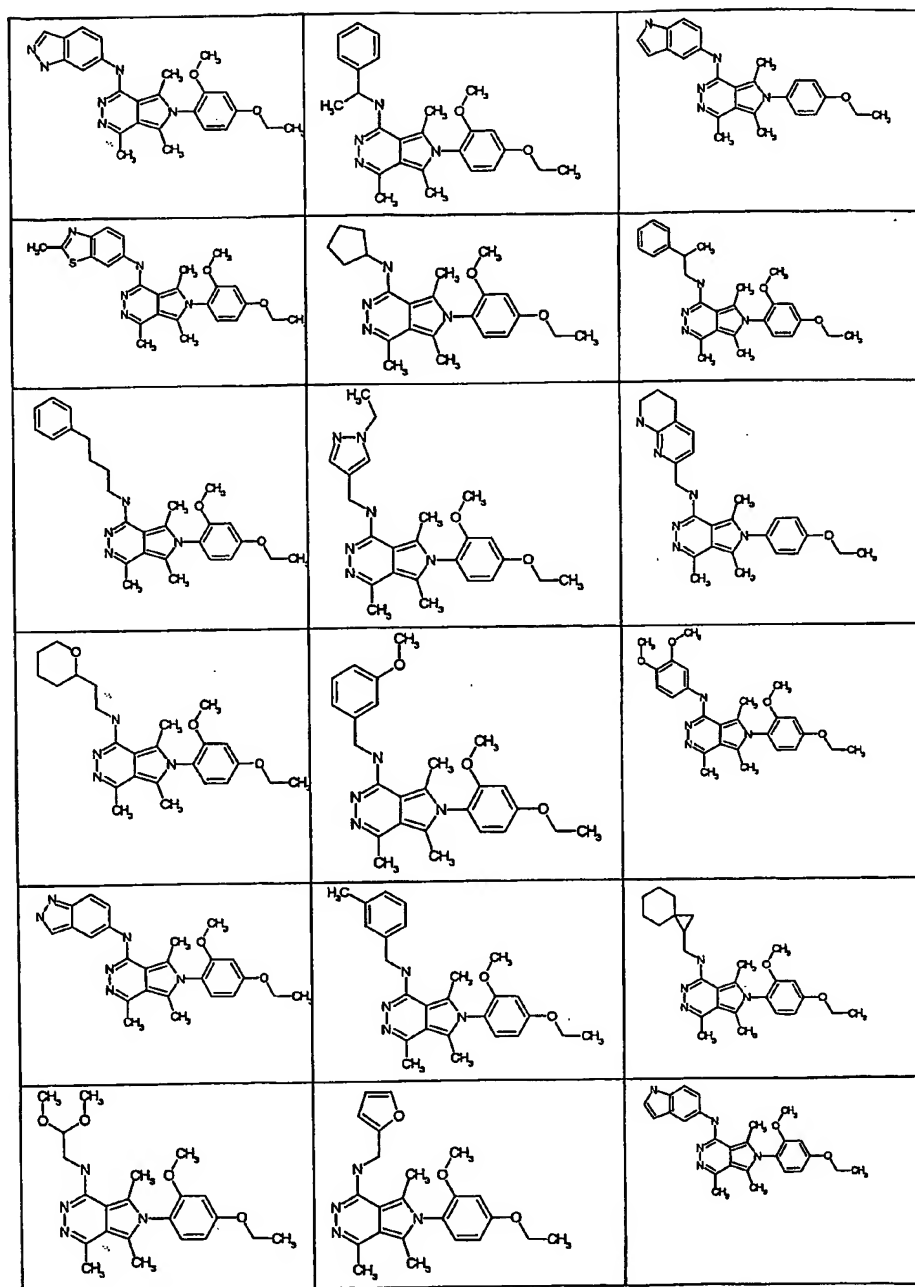


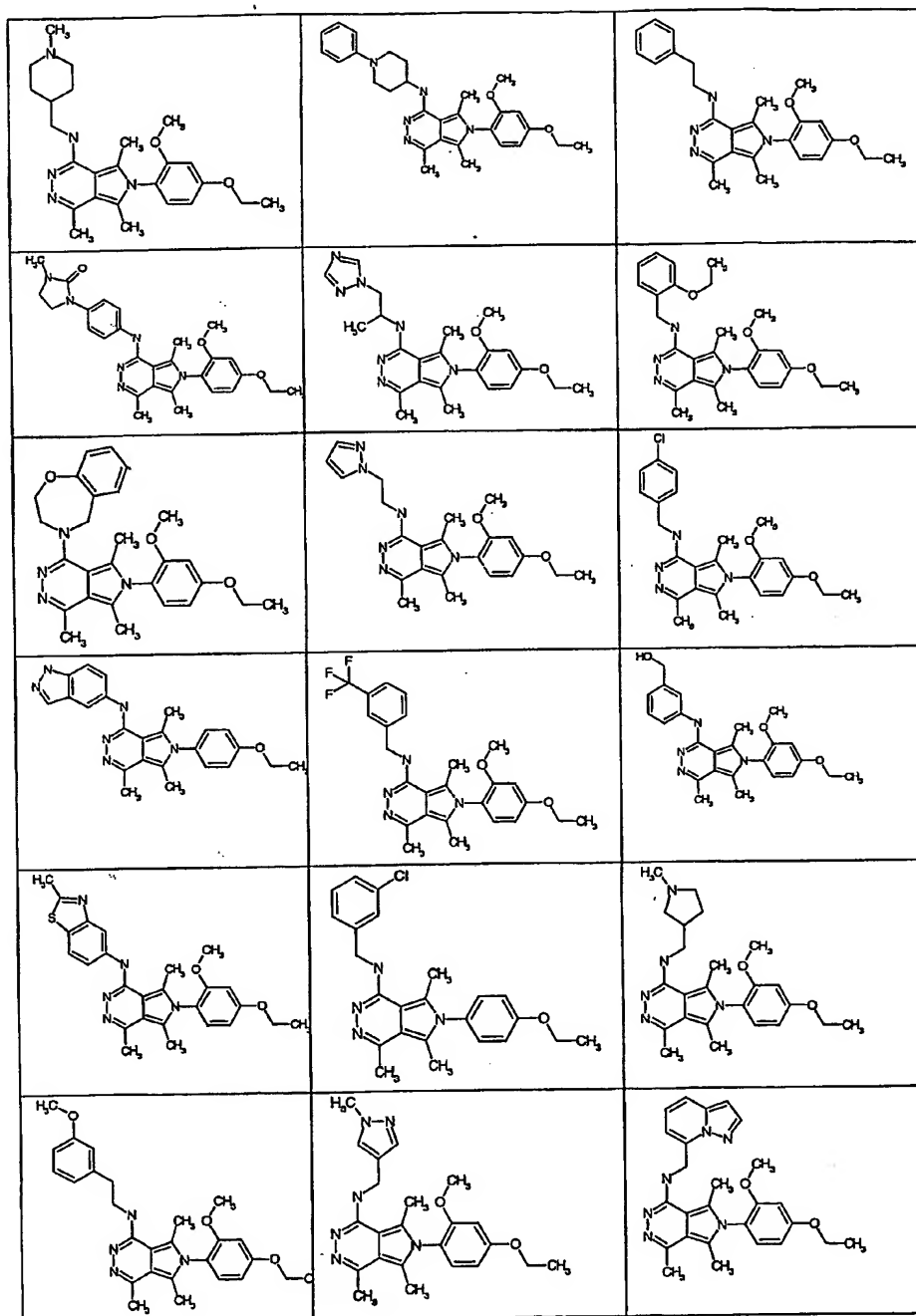


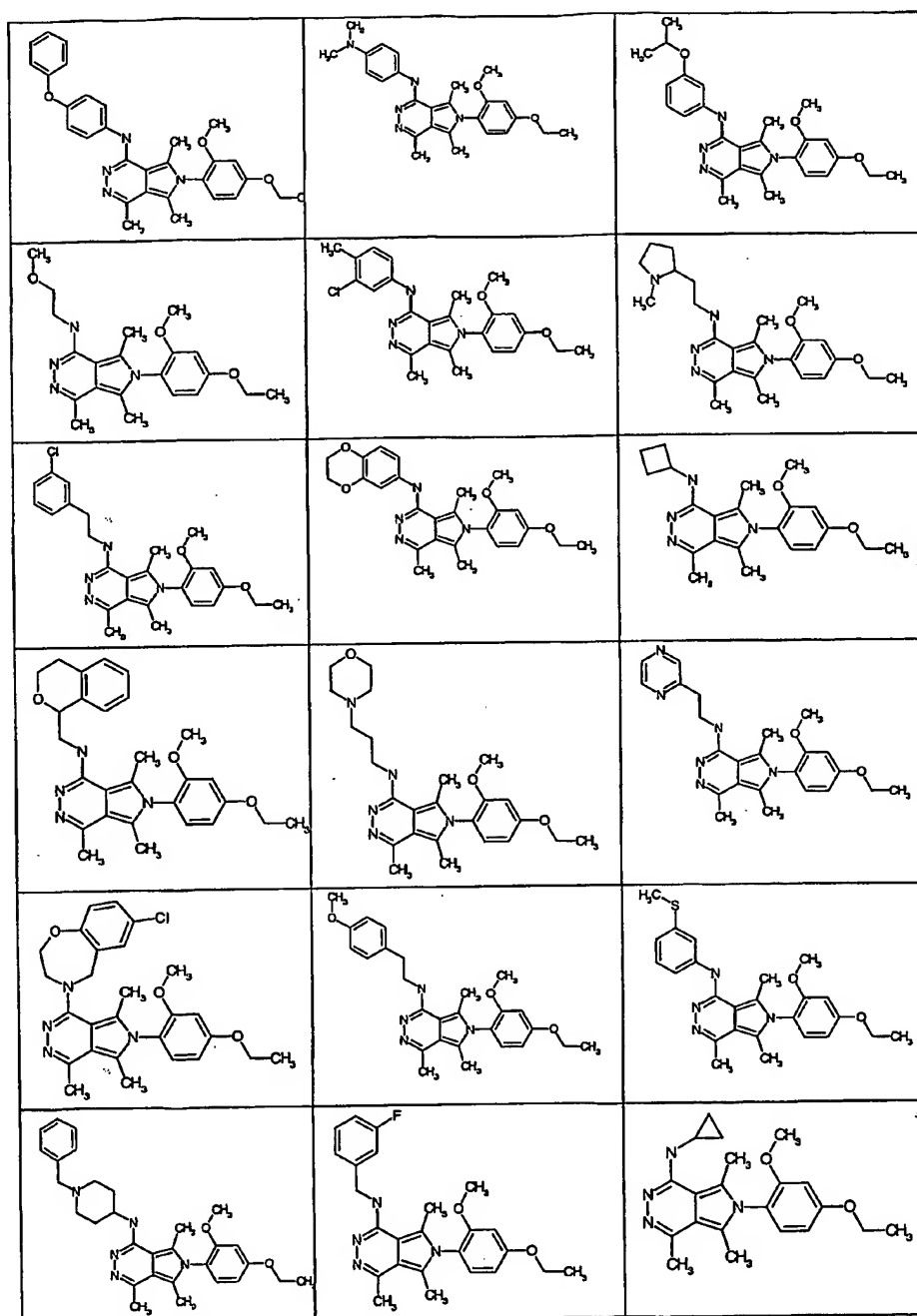


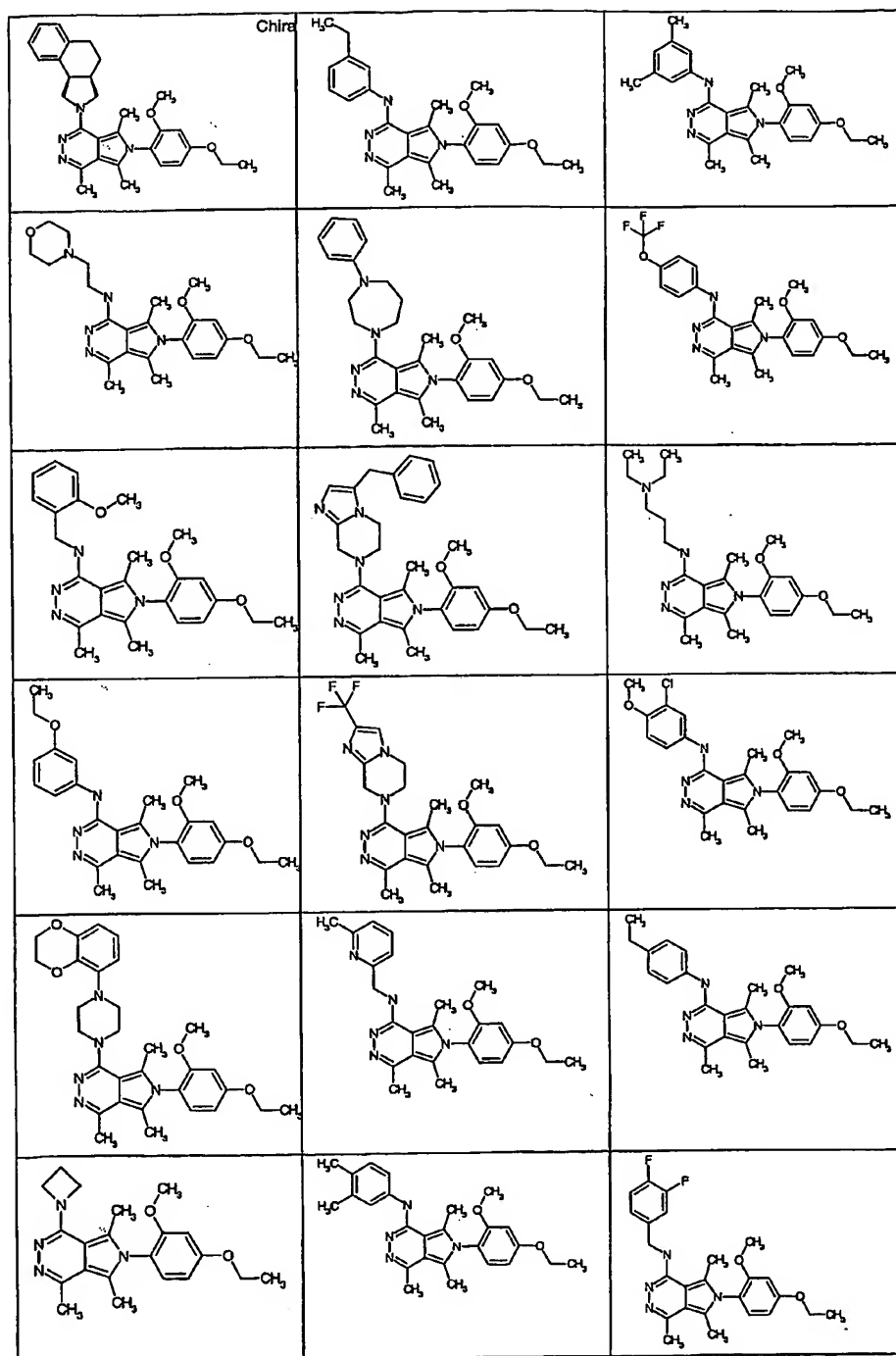


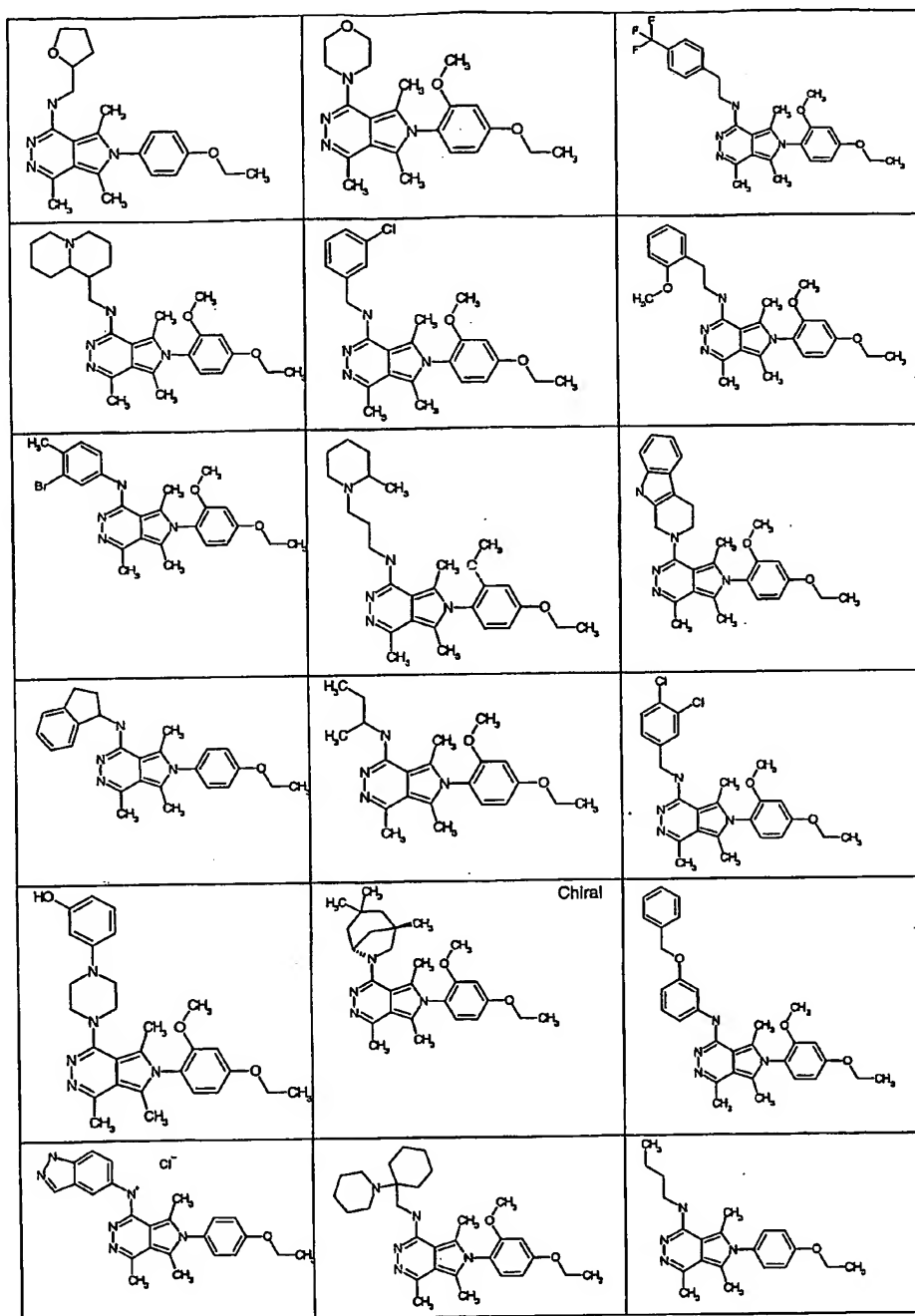


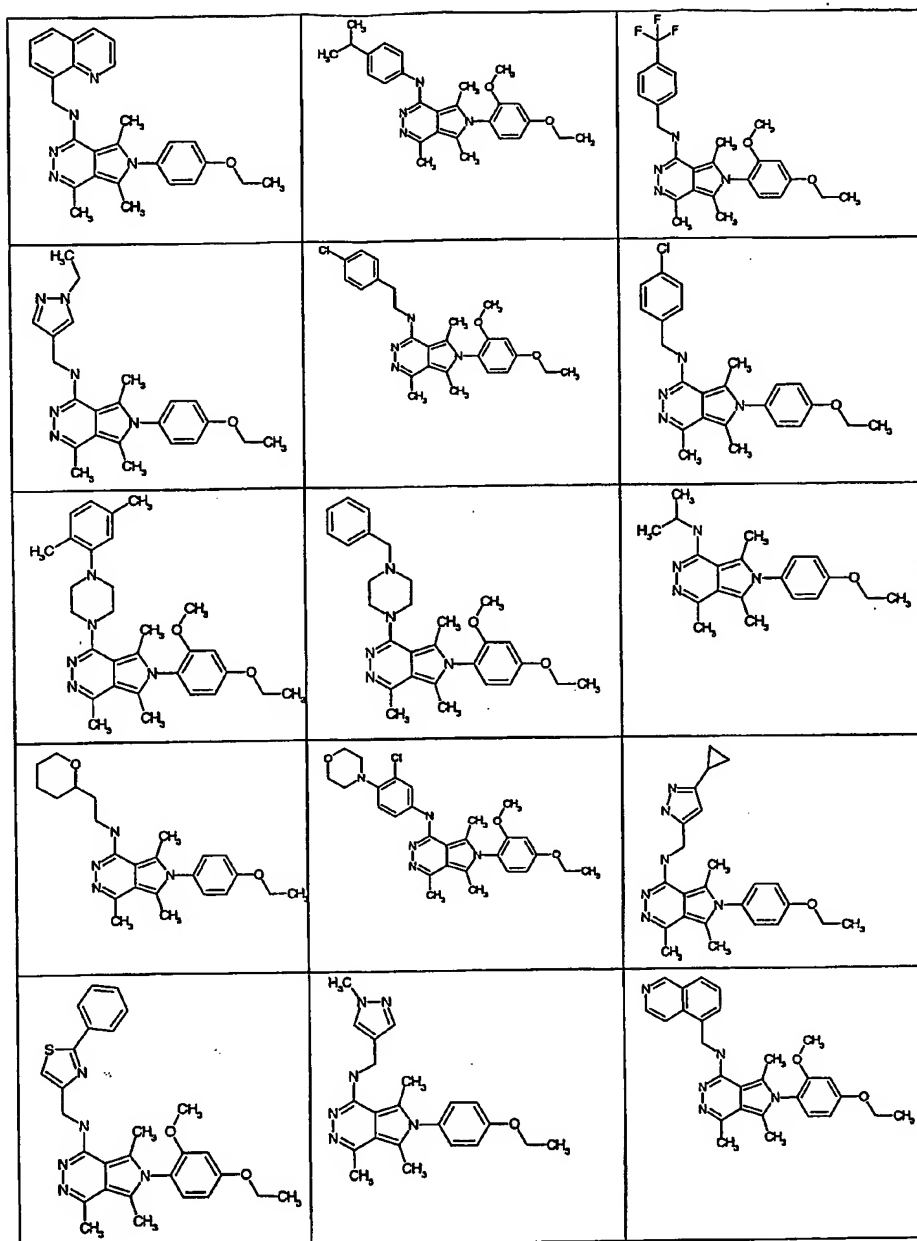


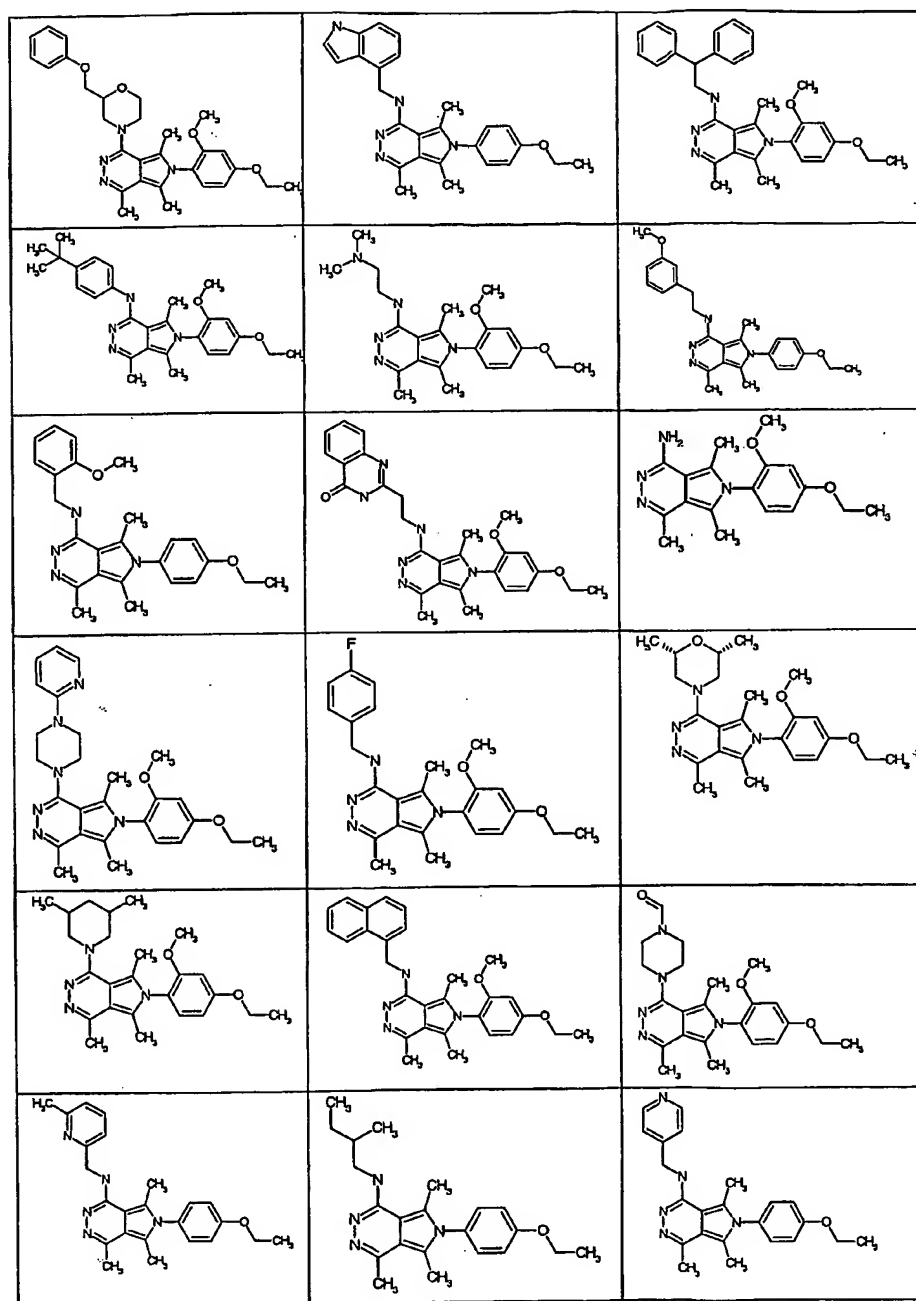




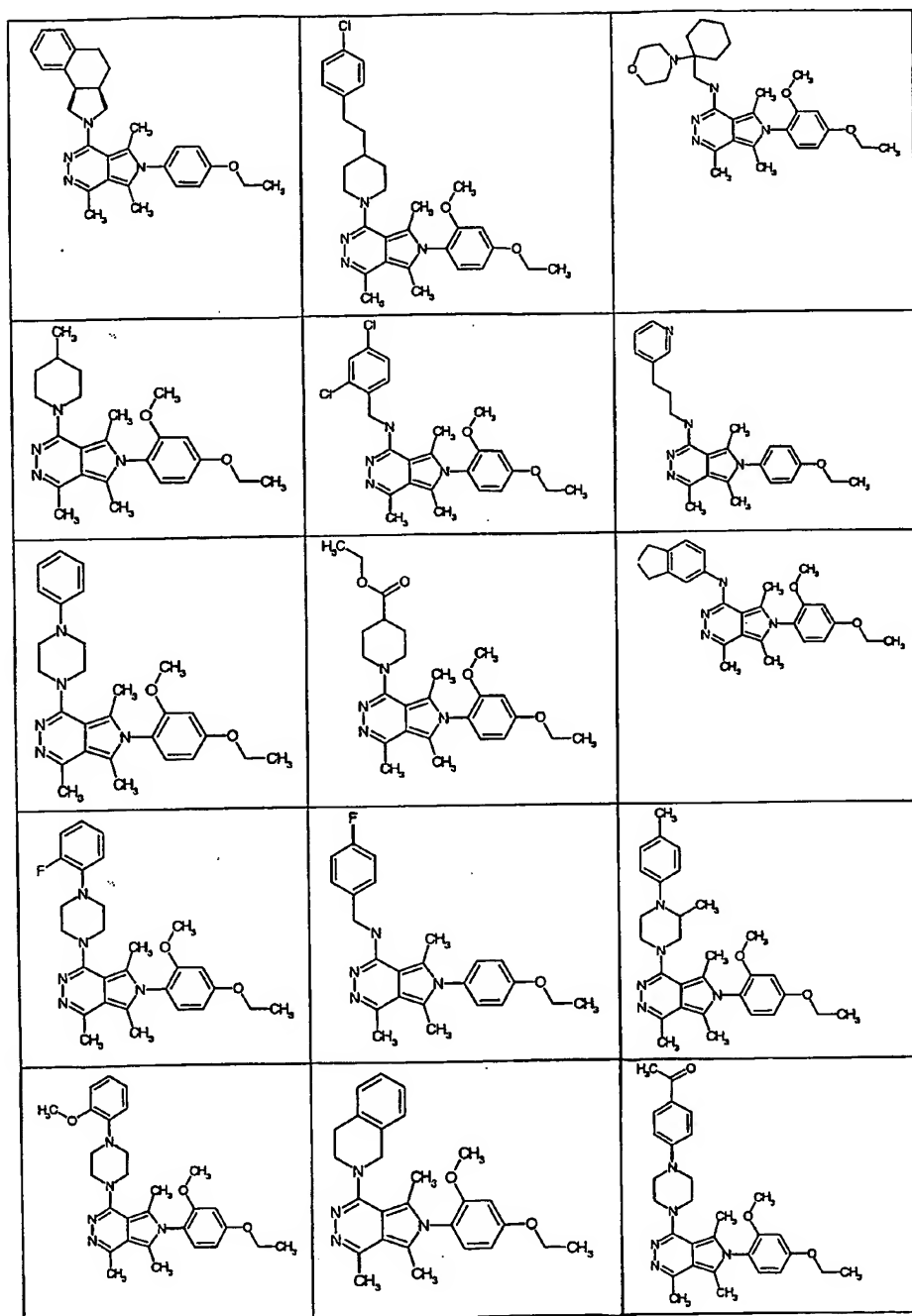


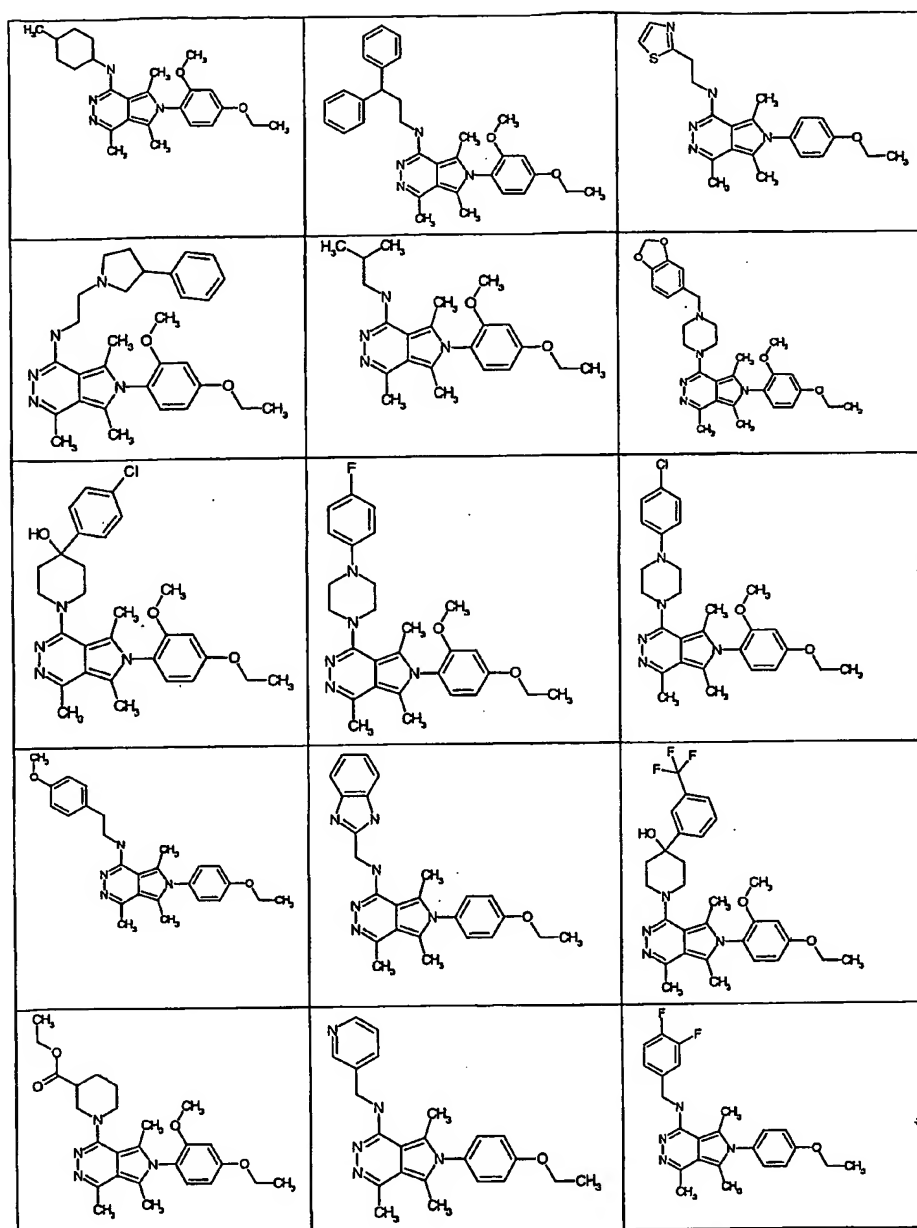


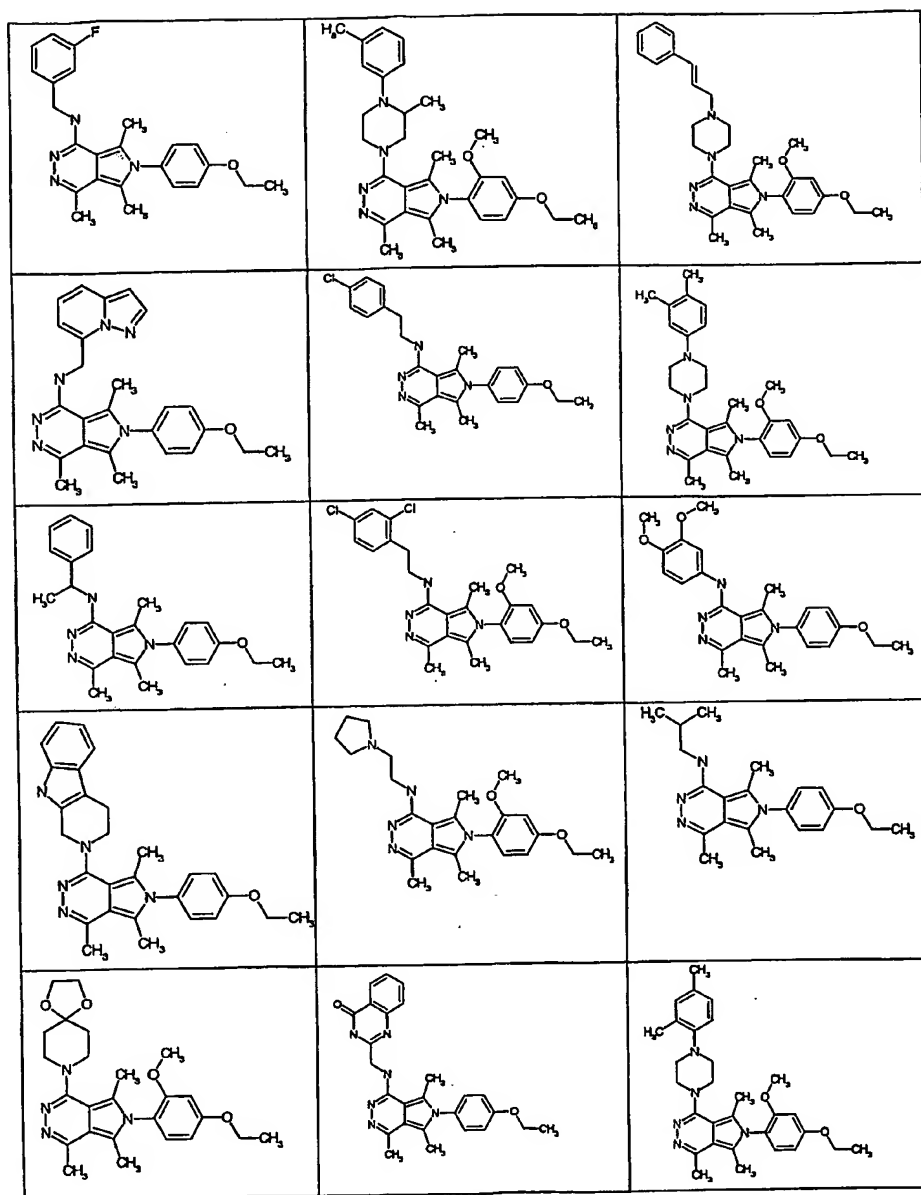


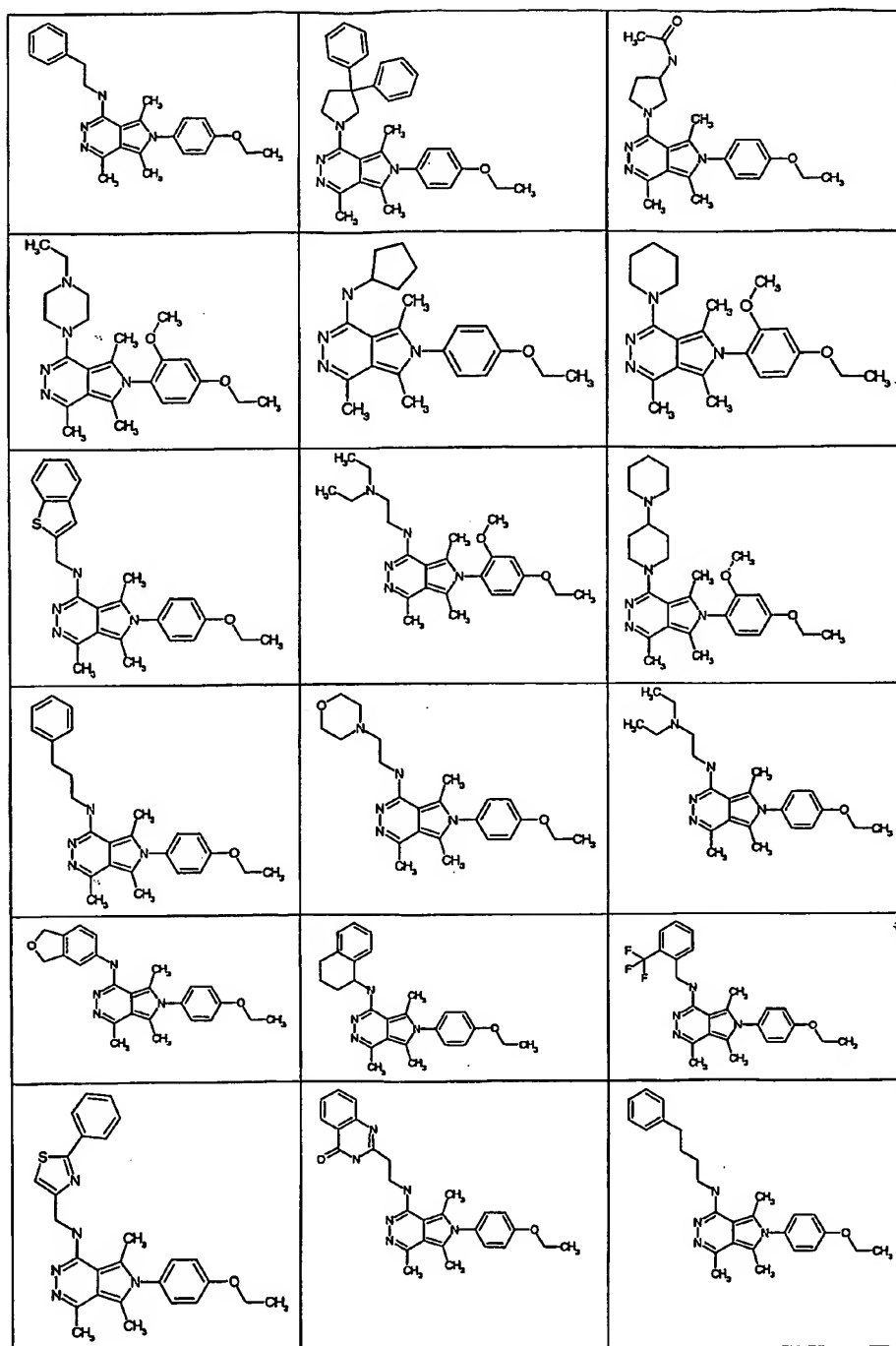


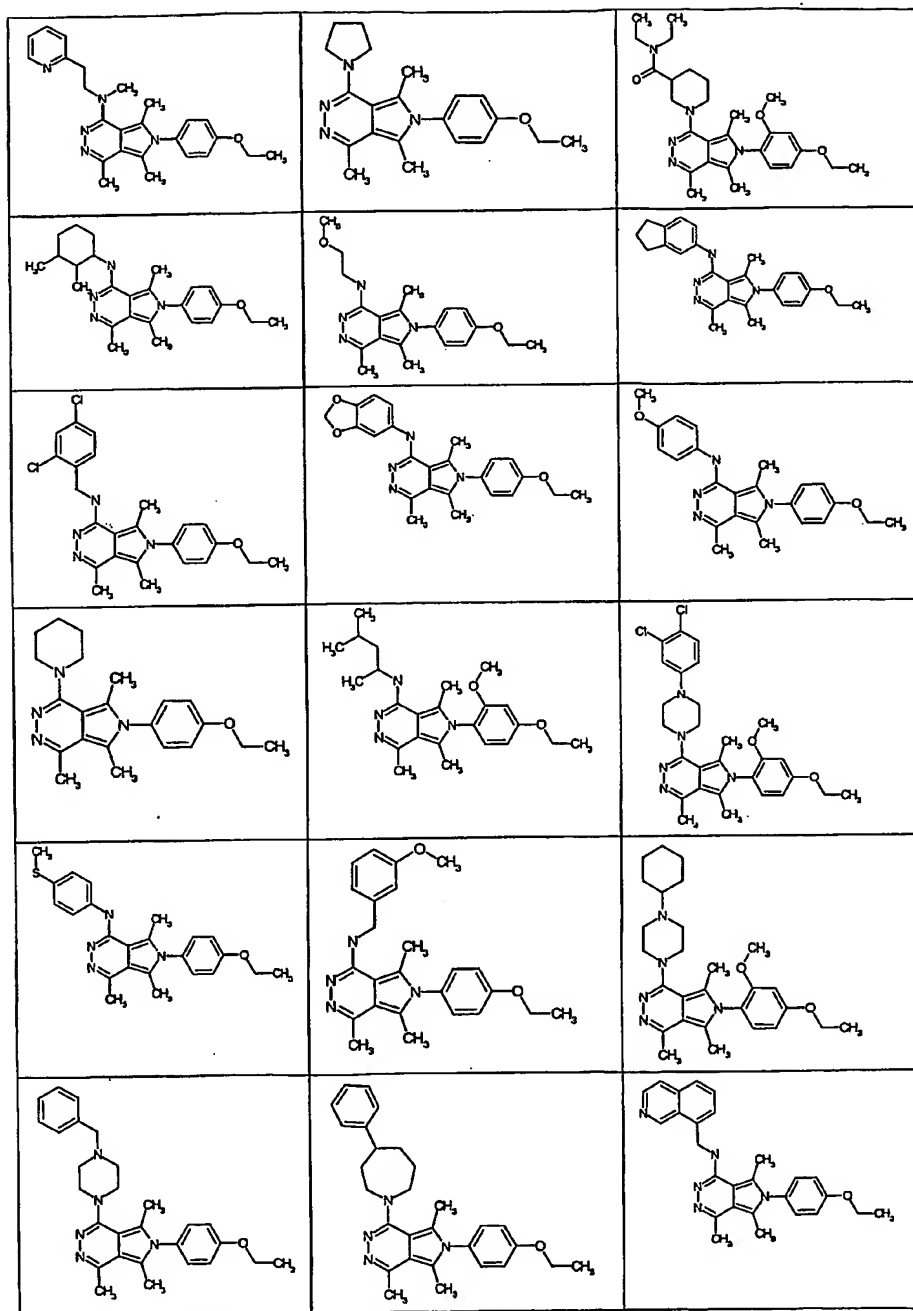


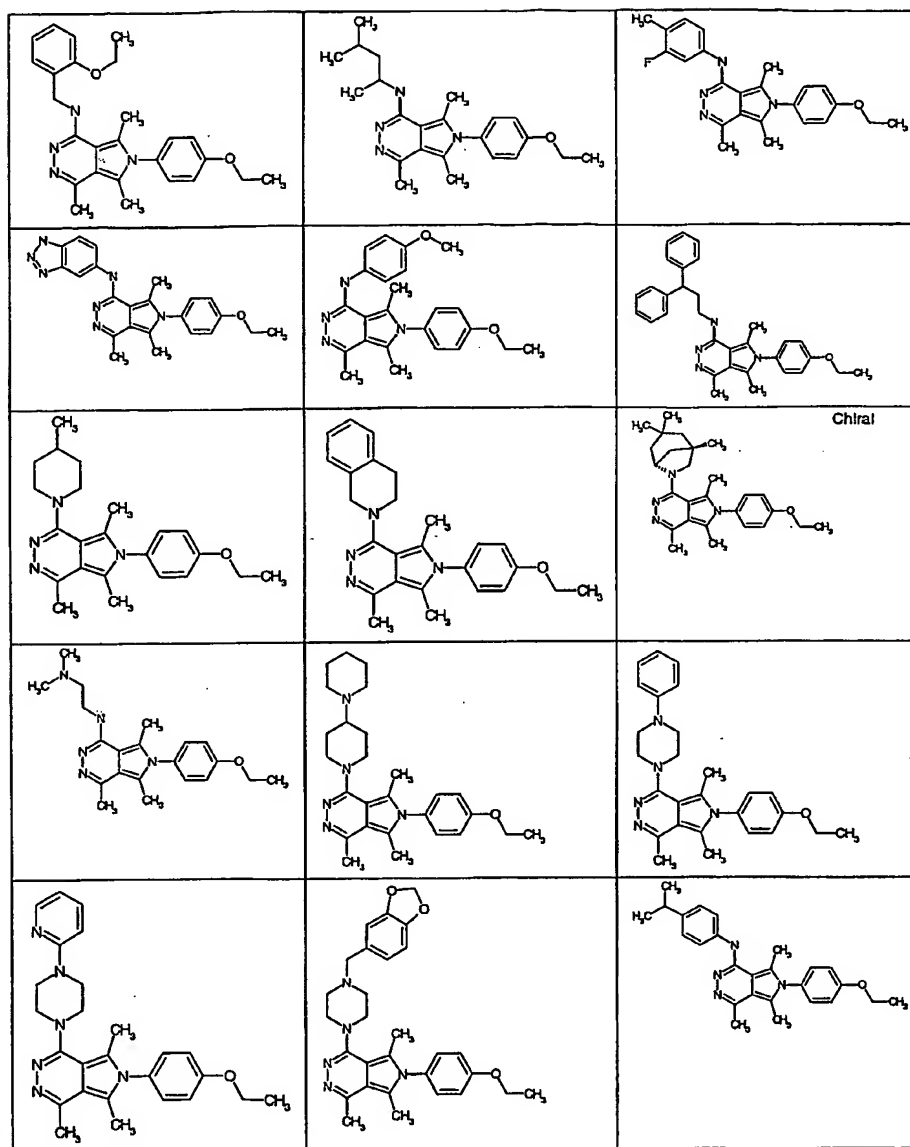


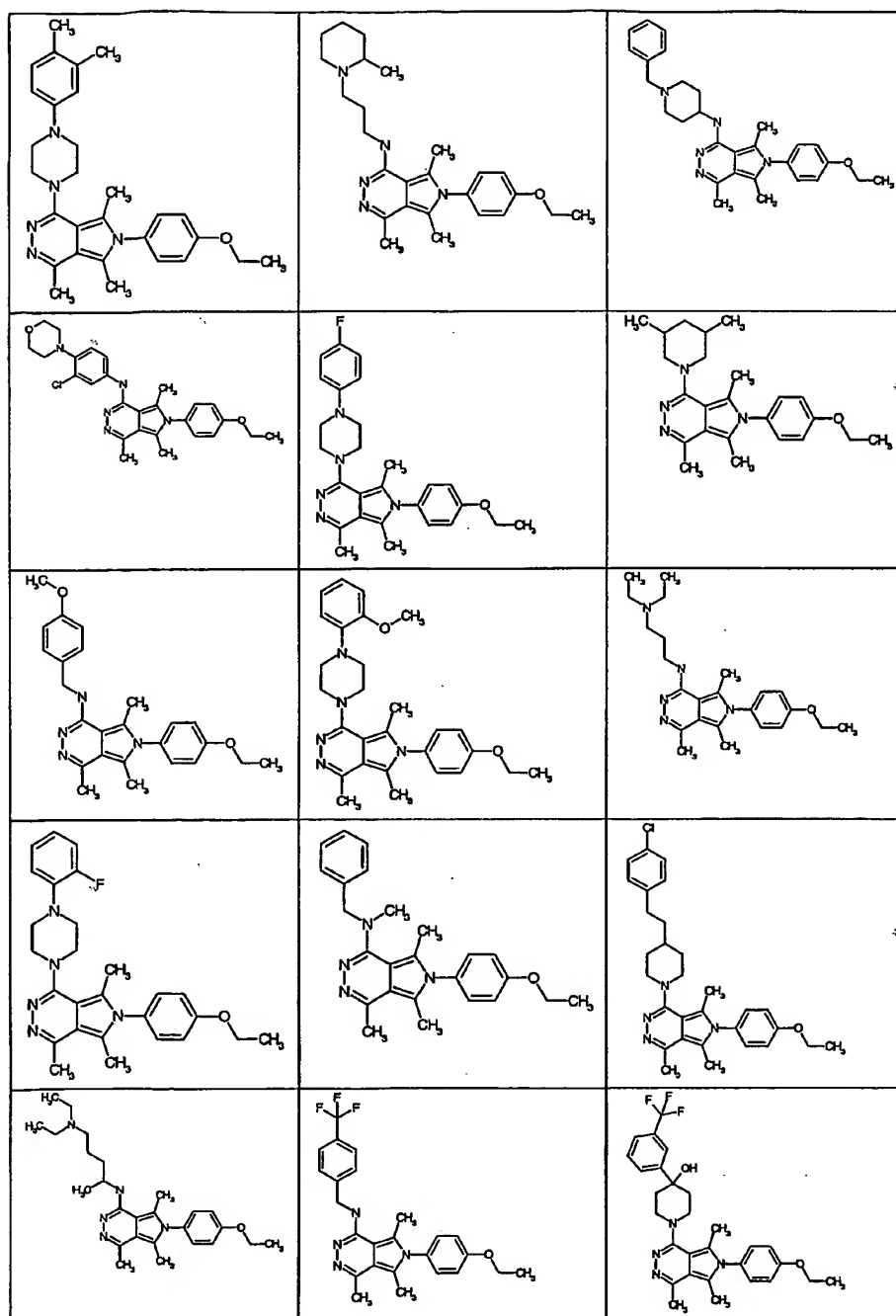


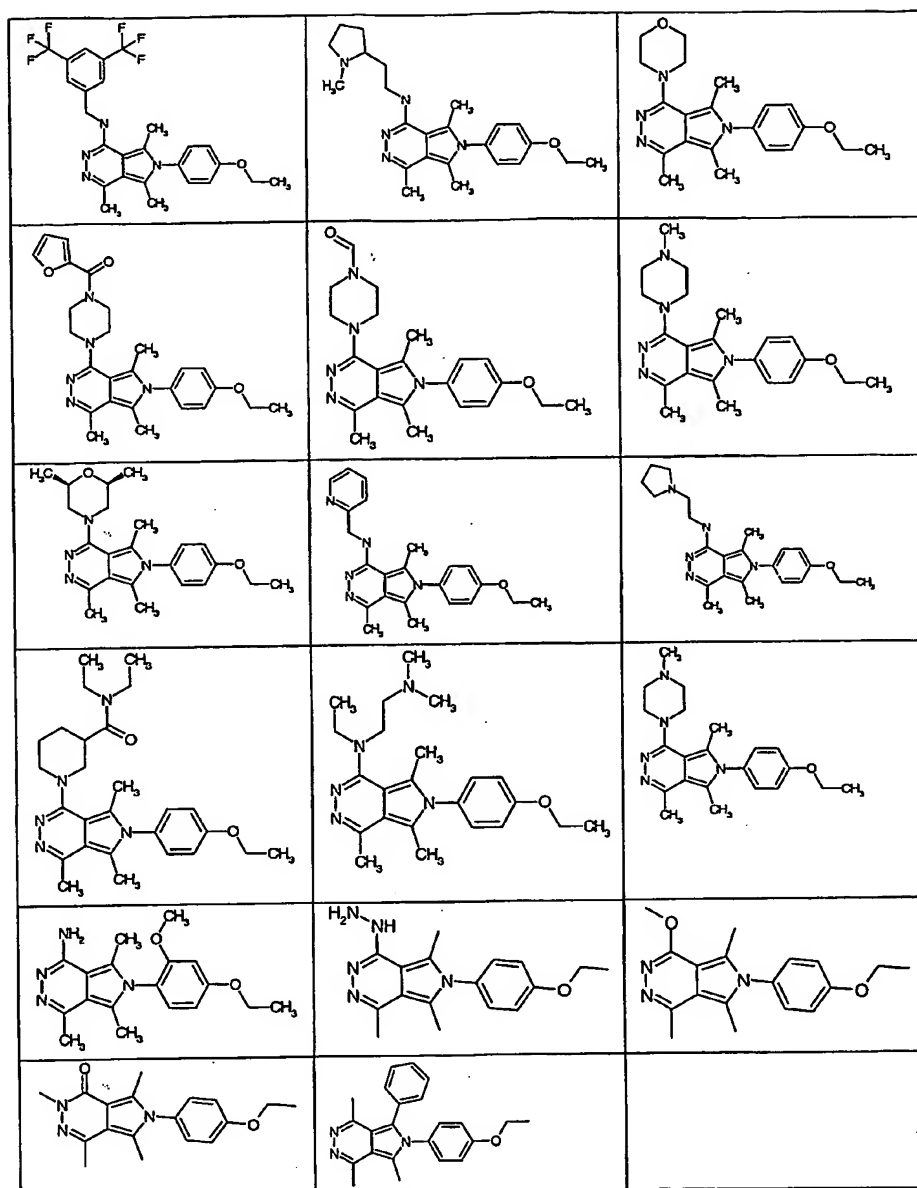








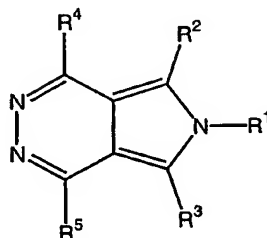




or a pharmaceutically acceptable salt thereof.



26. A compound represented by Formula (I):



(I)

or a pharmaceutically acceptable salt thereof, wherein

- 5 R1 is -C0-6alkyl-aryl, -C0-6alkyl-heteroaryl, -C0-6alkyl-C3-6cycloalkyl, or -C0-6alkyl-heteroC3-7cycloalkyl, optionally substituted with 1-6 independent halogen, -CN, NO<sub>2</sub>, -C1-6alkyl, -C0-6alkyl-C3-6cycloalkyl, -C0-6alkyl-heteroC3-7cycloalkyl, -OR6, -NR6R7, -C(=NR6)NR7R8, -N(-NR88R6)NR7R8, -NR6COR7, -NR6CO<sub>2</sub>R7, -NR6SO<sub>2</sub>R88, -NR6CONR7R8, -SR88, -SOR88, -SO<sub>2</sub>R88, -SO<sub>2</sub>NR6R7, -COR6, -CO<sub>2</sub>R6, -CONR6R7, -C(=NR6)R7, or -C(=NOR6)R7 substituents;

- 10 R2, R4, R3, and R5 each independently is -C0-6alkyl, -C0-6alkyl-aryl, -C0-6alkyl-heteroaryl, -C0-6alkyl-C3-6cycloalkyl, or -C0-6alkyl-heteroC3-7cycloalkyl, optionally substituted with 1-6 independent halogen, -CN, NO<sub>2</sub>, -C1-6alkyl, -OR6, -NR6R7, -C(=NR6)NR7R8, -N(-NR88R6)NR7R8, -NR6COR7, -NR6CO<sub>2</sub>R7, -NR6SO<sub>2</sub>R88, -NR6CONR7R8, -SR88, -SOR88, -SO<sub>2</sub>R88, -SO<sub>2</sub>NR6R7, -COR6, -CO<sub>2</sub>R6, -CONR6R7, -C(=NR6)R7, or -C(=NOR6)R7 substituents; and

- 15 R6, R7, R8, and R88 each independently is -C0-6alkyl, -C3-7cycloalkyl, heteroaryl, or aryl; optionally substituted with 1-5 independent halogen, -CN, -C1-6alkyl, -O(C0-6alkyl), -O(C3-7cycloalkyl), -O(aryl), -N(C0-6alkyl)(C0-6alkyl), -N(C0-6alkyl)(C3-7cycloalkyl), or -N(C0-6alkyl)(aryl) substituents; provided that the compound is not

- 25 6-methyl-6H-pyrrolo[3,4-d]pyridazine,  
1,4,5,7-tetramethyl-6-phenyl-6H-pyrrolo[3,4-d]pyridazine,  
1,4,5-trimethyl-6,7-diphenyl-6H-pyrrolo[3,4-d]pyridazine,  
5,7-dimethyl-1,4,6-triphenyl-6H-pyrrolo[3,4-d]pyridazine,  
5-methyl-1,4,6,7-tetraphenyl-6H-pyrrolo[3,4-d]pyridazine,

- 1,4-bis-(4-methoxy-phenyl)-5,7-dimethyl-6-phenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 1,4-bis-(4-methoxy-phenyl)-5-methyl-6,7-diphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 5 1,4-diethyl-5,7-dimethyl-6-phenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 1,4,5,7-tetramethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
*N*-(1,4,5,7-tetramethyl-pyrrolo[3,4-*d*]pyridazin-6-yl)-benzamide,  
 1,4,5,7-tetramethyl-pyrrolo[3,4-*d*]pyridazin-6-ylamine picrate,  
 1,4,5,7-tetramethyl-pyrrolo[3,4-*d*]pyridazin-6-ylamine,  
 10 5,7-dimethyl-6-phenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 5,7-dimethyl-2-phenacyl-6*H*-pyrrolo[3,4-*d*]pyridazinium bromide,  
 2-(2-methoxycarbonylvinyl)-5,7-dimethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium tetrafloroborate  
 5,7-diphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 15 5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 1,4-diphenyl-7,8,9,10-tetrahydro-pyridazino[4,5-*a*]indolizine,  
 5-methyl-1,4-diphenyl-7,8,9,10-tetrahydro-pyridazino[4,5-*a*]indolizine,  
 6-benzyl-1,4-diphenyl-5-*p*-tolyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 6-benzyl-5-(2-chloro-phenyl)-1,4-diphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 20 1,4,5,6,7-pentaphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 6,7,10,11-tetraphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*a*]quinoxaline,  
 11-(4-nitro-phenyl)-6,7,10-triphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*a*]quinoxaline,  
 25 6-benzyl-1,4,5-triphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 9,12-diphenyl-pyridazino[4',5':3,4]pyrrolo[2,1-*a*]isoquinoline,  
 5-methylsulfanyl-1,4,6,7-tetraphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 1,4,6,7-tetraphenyl-6*H*-pyrrolo[3,4-*d*]pyridazine-5-carboxylic acid  
 ethyl ester,  
 30 7,10-diphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*a*]quinoline,  
 11,14-diphenyl-pyridazino[4',5':3,4]pyrrolo[1,2-*f*]phenanthridine,  
 1-oxo-7-oxy-6*b*,11*b*-dihydro(pyridazino[4',5'-*c*]-pyrrolo)[2.1-*c*]benzoxazine-1,4,  
 10-methyl-1,4-diphenyl-8,9-dihydro-7*H*-benzo(*ef*)pyridazino[4,5-*a*]cycl[3.3.2]azine,

- 11-methyl-1,4-diphenyl-7,8,9,10-tetrahydrocyclohepta(ef)pyridazino[4,5-a]cycl[3.3.2]azine,  
 1,4-dichloro-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 1-chloro-4-ethoxy-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 5 1-chloro-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium chloride,  
 1-ethoxy-2,5,6,7-tetramethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium  
 tetrafluoroborate,  
 1-ethoxy-5,6,7-trimethyl-2*H*,6*H*-pyrrolo[3,4-*d*]pyridazinium  
 tetrafluoroborate,  
 10 1-ethoxy-3-ethyl-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazinium  
 tetrafluoroborate,  
 1-ethoxy-5,6,7-trimethyl-6*H*-pyrrolo[3,4-*d*]pyridazine,  
 5-cyano-1,4-dimethylpyridazino[4,5-*a*]indolizine,  
 1,4-dimethyl-6-phenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 15 6-benzoyl-1,4-dimethyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 6-benzyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 1,4,6-trimethyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 5-cyano-1,4-diphenylpyridazino[4,5-*a*]indolizine,  
 6-methyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 20 6-benzoyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 1,4,6-triphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 5,7-dimethyl-1,4-diphenyl-2,3,8a-triaza-fluorene-9-carbonitrile,  
 9,12-diphenyl-pyridazino[4',5':3,4]pyrrolo[2,1-*a*]isoquinoline-8-  
 carbonitrile,  
 25 dimethyl 3,12,13,17-tetramethyl-7<sup>2</sup>,7<sup>3</sup>-diazabenzog[*g*]porphyrin-2,18-  
 dipropionate,  
 5,6-dihydro-2,3-dimethoxypyridazino[4',5':3,4]pyrrolo[2,1-  
*a*]isochinolin-9-ol,  
 5,6-dihydro-2,3-dimethoxypyridazino[4',5':3,4]pyrrolo[2,1-  
 30 *a*]isochinolin-9-ol-hydrochloride,  
 3-methyl-6,9-diphenylthiazolo[3',2':1,2]pyrrolo[3,4-*d*]pyridine, or  
 1,4-diphenylpyridazino[4',5':3,4]pyrrolo[2,1-*b*]benzothiazole; and  
 is not selected from the following table:

